

ARCHITECTURE

The PROFESSIONAL ARCHITECTURAL MONTHLY

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ARCHITECTURE

THE PROFESSIONAL ARCHITECTURAL MONTHLY

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North and east sides of Holder Quadrangle.

Holder and the Halls

An Appreciation

By Ralph Adams Cram

IN this great group of collegiate buildings at Princeton—Holder Hall and the University Dining Halls—Messrs. Day and Klauder reach the highest point thus far in their authoritative interpretation of Gothic as a living style. It is impossible in the light of this, one of the most distinguished architectural creations in America, for any captious critic, however Parisian or modernist he may be, to allege that the Gothic of England, so interpreted, is either lacking in vitality or in essential beauty. I should say that this quality of abounding life was the most distinguishing mark of these buildings, though uncompromising beauty presses it close. In comparison the Americanized Renaissance of France seems artificial and affected, the Americanized Renaissance of Italy archæological and lifeless.

Here we have the spirit of Gothic without dull copying, the vivid stimulus of the subconscious historic sense without archæological imitations. And the logic of articulation, the pure and varied beauty that characterized the Gothic of old, are preserved intact and even, at least so far as beauty is concerned, intensified and raised to a higher power. There is nothing better in Oxford or Cambridge, at Winchester or Eton; there are things that are different and with their own qualities of personality and originality, but, tested by the same standards, Holder and the Halls have nothing to fear from the comparison.

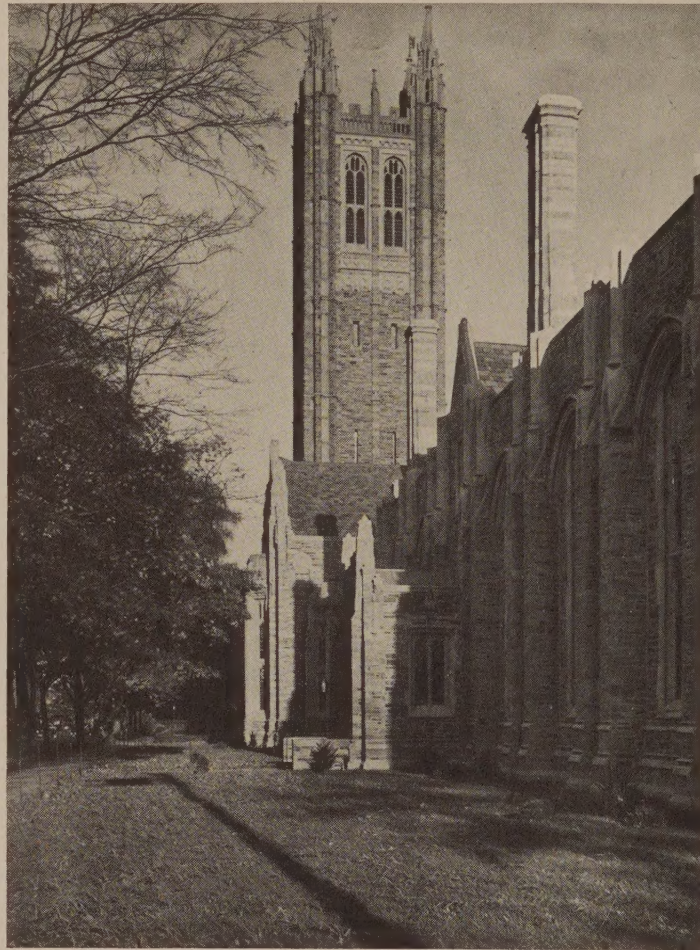
As for picturesqueness, there has been raised, quite logically, out of a plan that fully satisfies the requirements of a vital and manifold service, such a romantic composition

of varied elements, such a building up of gables and towers, oriels and porches, dormers and pinnacles, such an accenting of broad walls by vivid notes of traceried windows and unexpected ornament of crisp, rich carving; one can only say that modern architecture offers no parallel, and only in music and poetry is to be found anything quite the same. It is drama pure and simple, drama of the finest type without theatricalism or sensational appeal; every new view one gets is of a perfect stage-setting for a great play or opera. And all without apparent premeditation. The whole thing has the quality of spontaneous growth; on the one hand there is a total lack of that academic and abstractly theoretical composition that is now and always has been the curse of revived Renaissance, as it was the weakness of original Renaissance, and on the other of that straining for sentimental effects that marks so much modern Gothic. These buildings have grown from within outward—as all good architecture grows—and the result is a sense of spontaneity, a convincing reality and crescent life that are elsewhere far to seek. It is no two-dimensional architecture; it is conceived and formulated in three dimensions. So evident is its success, so universal is its appeal, it is the sharpest possible criticism of every scholastic system that relies on the T-square and triangle determination of mathematical elevations and takes no thought of what these may bring forth when translated from two dimensions into three.

In general, this work is a consummate example of what is meant by "human scale." This is where men live and grow, not where some gross type of supposititious "super-men" are assumed to batten on imperial power. Roman architecture was of this latter sort, as was right, since such was the temper of the state. So is much modern building, which may also be fit and proper, and for the same reason, but when this sort of thing tries to intrude into categories still traditionally human in quality it must be savagely resisted just as the world is now resisting the same sort of thing in world affairs. Church, school, home, all are, or should be, thus human. The scale of Holder and the Halls is right both in mass and in detail, and if one picks flaws here and there, as in some of the slate size and thickness, the central entrance to the cloisters (the only unsatisfactory element in the whole composition), and in the vertical paneling of some of the buttresses, it is only for the purpose of still further emphasizing the consummate beauty and perfection of the thing as a whole.

I hardly know which to admire the more: the originality and suppleness with which the Gothic idea is treated or the miraculous manner in which, with all this originality, the quality of historical association is preserved. There has been no modern Gothic in any country where there was less of copying, less of archaeological exactness. It would be hard to pick out a single item that is a replica of any existing mediæval work, yet the *spirit* of Gothic is here present as vividly and convincingly as it is at Laon or the Ste. Chapelle, at Lincoln or Gloucester or Oxford. Of course,

this is why it is all so good. When the approach to Gothic verity is attempted through an assembling of archaeological data, absolute failure results. Success follows only from the reverse method: an assimilation and achievement of the Gothic idea and a working this out into detail from that basis only. In other words, Gothic is not a scheme of construction nor a series of stereotyped architectural formulæ; it is a spirit, a way of looking at things, an impulse of definite quality, an inspiration working from one particular source, along certain clearly determined lines, toward one particular end. In this sense it is a more living and mobile style than any other known to man. It appears that it is after this fashion that these architects have proceeded, and the result is, in my opinion, the most successful re-creation of the Gothic idea that has happened since Pugin, far back at the beginning of the nineteenth century, struck the first blow at

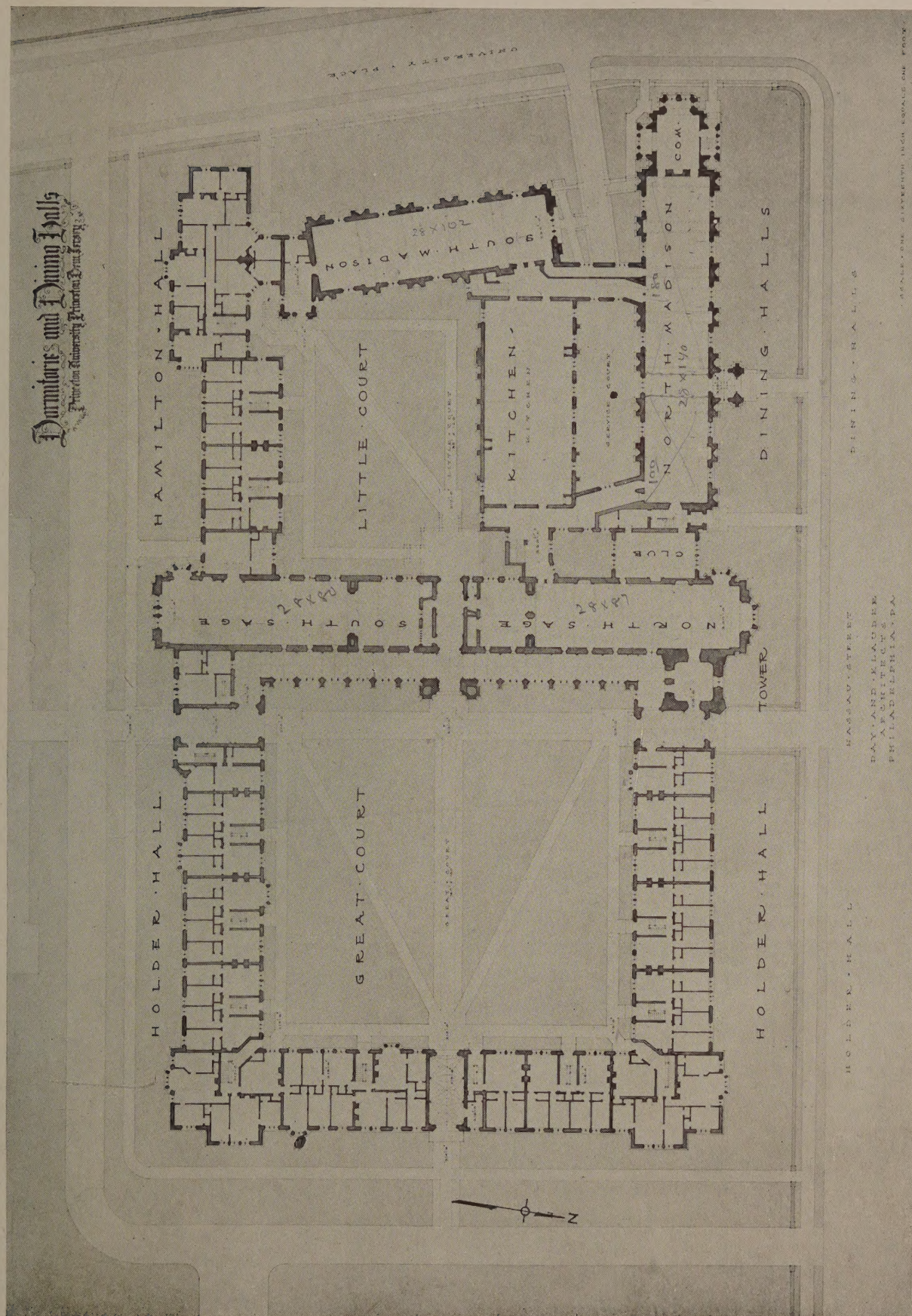


North Madison and Holder Tower, flanking Nassau St. (the main street of Princeton).

demolishing a dead formula and substituting a living force.

Princeton allied itself with this creative movement many years ago; it has held on its course without flinching, and to-day it stands as the one university in America that shows visibly the great university ideal. Here, as nowhere else, in the matchless cultural quality of Oxford and Cambridge, and in Holder and the Halls, Princeton has achieved the high point of its accomplishment.

Architecture, as a living art, owes the university a debt of gratitude for making possible here a demonstration of creative architecture at its highest point and an equal debt to the architects for proving once for all that Gothic is the one living form of architecture to-day and susceptible of the achievement of pure beauty such as may not be obtained along any other lines. Civilization crumbles before our eyes, but here is a prophecy of the fashion after which the new civilization that must follow the great purgation of war will show itself once it establishes itself on the sure



foundations that still lie buried under the ruin and detritus of five centuries of misguided effort. It is not the manifestation of what has been, it is the vision of what may be.

I cannot close this note, which is, indeed, an "appreciation" rather than an estimate or a criticism, without a refer-

ence to the photographs, which are worthy of the subject. This is architectural photography at its best. Each view is not a cold presentment but a picture composed as a painter composes. The seizing of significant points of view and of beautiful spacings of light and shade is masterly and, I should say, unique.

A Description of the New Buildings at Princeton University

By "Vacationist"

SIR HENRY WOTTON begins his quaint "Elements of Architecture":

"The *End* is to build well.
Wel-building hath three Conditions.
Commodity, Firmneffe, and Delight."

Firmness, in these days, one may assume. Of Delight, Doctor Cram has had his say. Of Commodity it remains to speak.

Until recently there were no common dining-halls at Princeton. Freshmen and sophomores ate at their own lodgings or at private houses about the town, while most of the upper-classmen frequented the well-known dining-clubs. In the building on Nassau Street, first erected as a hotel and afterward used as dormitory, whose brick walls and veranda along Nassau Street have long been familiar, the first commons was established in February, 1906. In the new dining-halls here illustrated freshmen and sophomores are now required to take their meals. Thus are they assured a sufficiency of wholesome food, with a daily measure of communal life amid inspiring surroundings.

In planning for the future needs of an American university its authorities have to conceive the institution as capable of unlimited growth or to consider the present number of students as substantially fixed. The first presupposes a continuous accretion of students, buildings, faculty, capital, and land. The second is based upon the fact that a given equipment of buildings and invested capital is a unit which will answer the needs of a given number of students only, that increase in the

number of students means not larger units but new units, and that rather than create these an established university should gracefully yield to a new institution the opportunity of establishing itself in a new community.

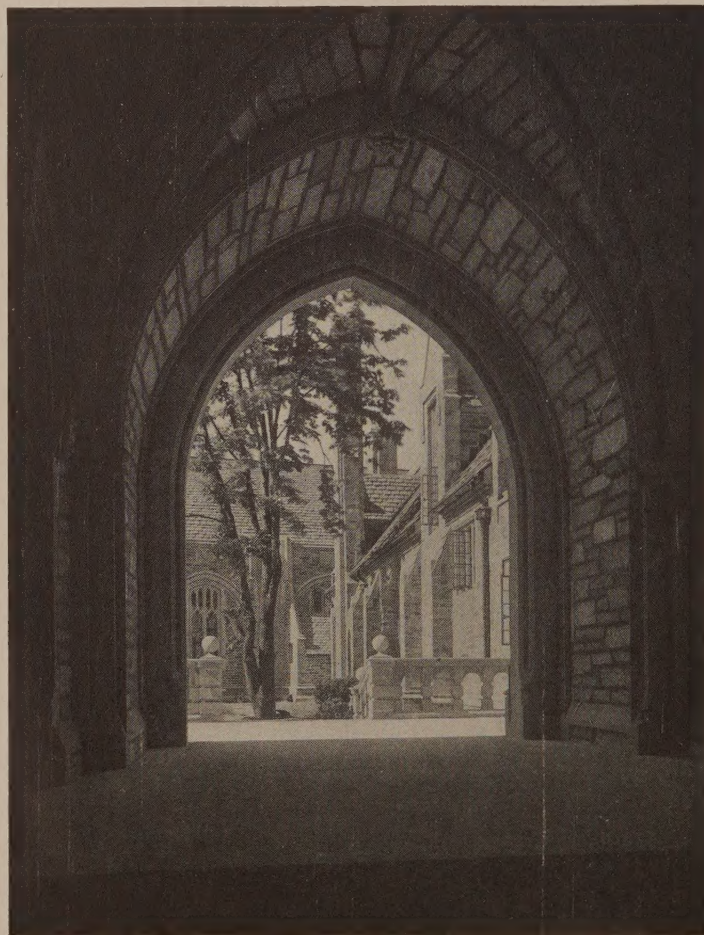
Whatever course it is the destiny of Princeton to follow, it is to be said that the present dining-halls are believed to be as large a unit as is feasible for economical operation. The group is self-contained. Should the number of students materially increase, a new unit would be called for elsewhere.

The Plan as a Whole

The accompanying block plan shows Holder Hall enclosing three sides of a great court of the same name. Along the western side of this court are the cloisters. These end

at the north at Holder Tower, which is one of the two towers marking the sky-line of Princeton and seeming to symbolize the aspirations of a seat of learning. A tablet on the wall states that this tower and adjoining dormitories are a memorial to Christopher Holder, a militant Quaker of the stormy days of the seventeenth century, and for them Princeton is indebted to his descendant, Margaret Olivia Sage.

Connected with the cloisters, so intimately that their eastern walls form the background to the arched ambulatory, extend North and South Sage Dining Halls. Between these a broad, vaulted opening leads to the Little Court. This court is enclosed on the south by the dormitories known as Hamilton Hall, on the west by South Madison Dining Hall, and on the north by the kitchen. North of the kitchen, separated from it by a service court and continuing



A glimpse into the Little Court.

the line of buildings along Nassau Street west of the tower, lies the largest of all the dining-halls, North Madison, with a club-house for upper-classmen and visiting alumni at the east end and a common room for sophomores at the west overlooking University Place.

Thus the buildings now are, but it is not to be supposed that such was the arrangement initially determined upon and achieved without interruption or deviation. That it was first intended to place the kitchen under the two eastern dining-halls is of little interest now, except that the bakery remains here under the cloister as a remnant of an earlier conception. That South Sage was first intended to be a low-ceiled hall, consequent upon the kitchen being underneath, is immaterial now. The university's officers and the architects developed and perfected the scheme of building from time to time even while the work of construction was actually going on. In the retrospect of it all is seen the Gothic style, true to tradition, adapting itself to elastic conditions and changing needs—the architects conceiving as the hands of workmen wrought, quite in the manner of the Middle Ages.

Why the final outcome of five halls about a kitchen and court as we see it to-day? Why was not great size and scale alone striven for? In the first place, it was realized that there is a limit to the size of a commons room and the number of students it should contain, beyond which it is not safe to go, if noise and confusion are to be avoided and comfort at meal-time assured. This limit has been exceeded at some American universities. Sensible of this error, Princeton determined upon five separate dining-halls designed to accommodate a total of one thousand two hundred students. These halls are almost equidistant from the central kitchen and are upon two levels. The floor of South Sage is 8 feet lower than its companion hall to the north. A fifth hall lies along University Place and constitutes a ground floor of South Madison.

The Dining-Halls

The interior of North Madison is 28 feet wide, $141\frac{1}{2}$ feet long, and 47 feet high to the highest point inside the roof, while 29 feet may be measured against the walls up to a point where the roof intersects them. The designers of this hall knew from their study of Gothic architecture

that to roof a hall of this width the trusses, if singly spaced, as is usual, could not be more than 10 or 12 feet apart. This would have resulted in dividing the length into fourteen equal divisions, each containing a window, the piers between each window supporting a truss. Manifestly such an arrangement would have been monotonous and uninteresting. In order to avoid this the trusses were grouped in pairs, thus dividing the building into seven parts, greatly to its advantage on the score of architectural dignity and interest. This is, indeed, one of the most original and salient features of the building's design. Two fine oak screens, located near each other, opposite the entrance to this dining-hall, divide

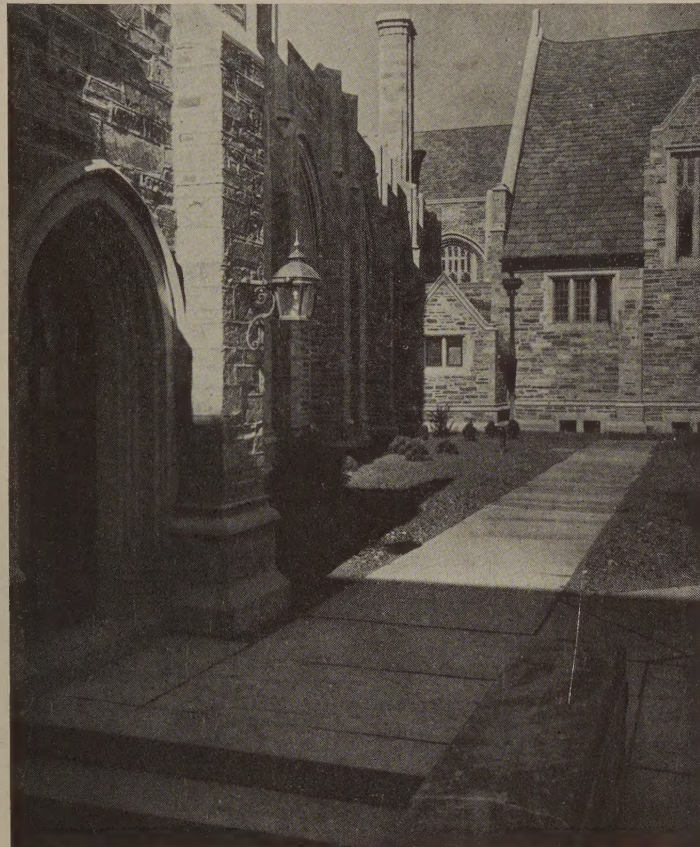
the entire room into two parts. The part toward the west is nearly twice the length of the remainder and accommodates one hundred and eighty sophomores. The other, or eastern part, is 46 feet in length and seats about one hundred upper classmen.

South Madison, by reason of its being really a second floor to this block of the group, is much lower from floor to roof than any of the other rooms. The length is $102\frac{1}{2}$ feet, the width $27\frac{1}{2}$ feet, and the height from floor to base of roof $19\frac{1}{2}$ feet, to inside of summit $31\frac{1}{2}$ feet. This lesser height has given an *intime* character to the room. Here is familiarity and cheer, whereas in the other halls is rather the impression of lofty dignity. The employment of the eagle as a motif for decorating the roof trusses has bestowed upon it the colloquial epithet of "Eagle Hall."

North Sage, 87 by 28 feet, and South Sage, 80 by 28 feet, were the first of the halls completed and have been in use about one year and a half. North Sage has a late Tudor flat ceiling 31 feet above the floor. The roof-truss of South Sage is 46 feet high at its summit. Above these two halls, and reached by a stairway from one of the lobbies, is a capacious and well-lighted common room for freshmen.

A guiding consideration in planning the dining-halls was to provide for such students as might not belong to one of the sixteen dining-clubs which have been a conspicuous feature of college life at Princeton. To this end not only was a portion of one of the finest halls allotted for their meals, but a club-house for their use was incorporated in the group. It lies between North Madison Hall and the tower and is of two stories, with lounging and billiard rooms, coat-room and lavatory.

At the west end of North Madison, serving as a common



Side of the Little Court.

room for sophomores, is one of the most richly ornamented portions of the entire group. A low bay on the south and a lofty bay on the west, the latter between piers terminating as geometric pinnacles, and all elaborately carved, impart an appropriate interest to this wing, standing as it does at the intersection of two principal streets.

Materials of Construction

The halls are of fireproof construction, the only combustible materials being the doors and wainscot. Upon first designing for Princeton, the architects cast about to discover, if possible, a material to be found closer at hand than the gneiss which had been transported for several other buildings from Chestnut Hill, near Philadelphia.

A number of buildings of the countryside, many of them old and unpretentious, were noticed as having walls of unusual beauty. The stone used for them was a local shale. Experiments were at once made in different methods of laying this and its possibilities quickly discerned. Individual stones vary greatly in tone, but by careful selection and upon being used in the present building, in conjunction with the mica schist of Chestnut Hill, a very satisfactory wall texture and color was secured, with the advantage of utilizing a local material.

The roofs, which slope at 52 degrees, are covered with Vermont slate of differing shades, with rough edges and graduated in thickness from $1\frac{1}{2}$ inches at the base to $\frac{1}{2}$ inch at the ridge, the extent of weathering varying from $13\frac{1}{2}$ inches to 5 inches respectively with the thickness of the slate.

The interiors of the halls present sand-finished plastered walls, floors of gray Tennessee marble, and oak roofs of a light tone, approaching the color of natural weathering. Lighting-fixtures of hand-forged iron are suspended from the trusses to a height of 11 feet above the floor. The dining-tables are arranged in three longitudinal rows, this disposition having been chosen to enable the greatest number of persons to be served with adequate space for circulation. Each table is 2 feet 10 inches by 10 feet and seats ten persons. At the end of each dining-table is a small serving-table. Incidentally with this arrangement, giving, as it does, four long aisles, the cleaning of the floors—which

is done by an electric scrubbing-machine—can be the more easily performed.

The Kitchen and Its Operation

If the richly picturesque architecture of the dining-halls affords, as it surely does, an excellent background for pageantry, it is to be remembered that there is a daily pageant enacted in its midst, a drama that even the most æsthetic persons must needs crave for their inner selves. It is the always welcome three-act performance represented by three meals a day, the prelude to which occurs in the kitchen, the heart and pulse of the dining-halls. By this is meant not only the one room of that name but its numerous dependencies.

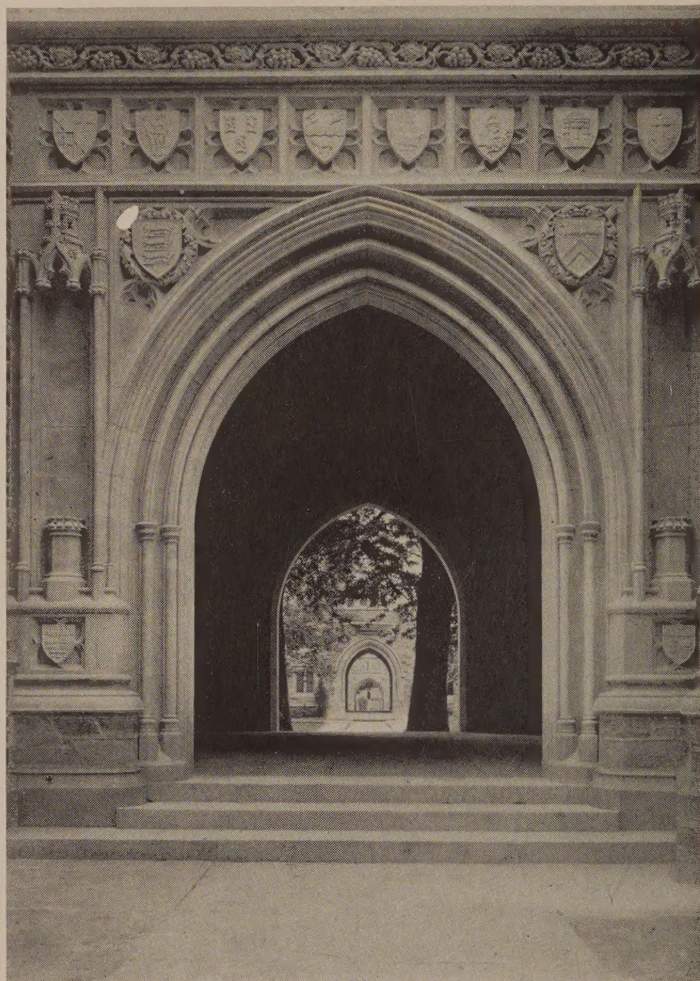
To obtain a view of these, let us follow the course of the raw material from the time it enters the basement storage-room via the service-court. Here it passes the office of a clerk, who inspects each shipment and invoice. It may go to the butcher-shop hard by and soon repose in one of the refrigerators for fresh meat, for smoked meat, or for fish; or it may go into either the vegetable or fresh-fruit refrigerators; or, if non-perishable, it finds an appropriate niche in the large wire-enclosed space containing canned and dry stores and supplies.

If the shipment is of milk, butter, or eggs it is sent to a room entirely devoted to these. All supplies, whether comestibles, soap, and other cleaning materials, or linen, must enter the building at this point

and receive their visé. Not far away is the office and working suite of the superintendent of the commons.

In the basement also, one entire side of which is fully exposed to the light and air of the service-court, is the vegetable-preparation room with adjoining storage-bins for potatoes and root vegetables. For transporting the supplies to the kitchen above, there are three dumb-waiters.

The kitchen itself is a single room 88 by 38 feet, floored with large red quarry tile, and with a plastered ceiling 23 feet high in the centre and enamelled brick walls. The ratio of kitchen floor area to dining-hall floor area is 1 to 3.47 square feet. There are no serving-rooms, but the broad corridors leading from the kitchen to each dining-hall answer to avoid congestion and as buffers to prevent



North entrance to Holder Hall from Nassau Street.

the kitchen noises from reaching the dining-halls. The kitchen is abundantly lighted by steel-sashed windows along the north. The fact that in its operation the kitchen was required to be duplex in plan determined the location of the mechanism and equipment. By this is meant, as a glance at the plan will show, that the two Sage dining-halls and the east end of North Madison are served entirely from the eastern half of the kitchen and the remaining halls from the west end. Hence the kitchen acquires a north and south axis across which no traffic passes. Here a double row of ranges and broilers are placed back to back, and, with a cook's table and steam-table in front of each row, the output is served toward the east and toward the west. The waiters follow an ordered loop in their course from the dining-hall tables into the kitchen, picking up silver, dishes, and food as they go, and then back to the dining-tables again, each following another ahead of him and without any other traffic crossing his path.

In a row along the south side of the kitchen are the soup, stock, and vegetable kettles, two cast-iron steamers, and a fat-melting kettle. All these are operated with high-pressure steam. Beside these is an electrically driven machine for beating eggs, whipping cream, mixing cake, mayonnaise, and the like. Opposite these, against the north wall, are the chef's sink and his refrigerator. Thereafter is to be seen

the double equipment of the kitchen repeating itself, as has been stated, on the eastern and western halves, and including dish-washing pantries with electric dish-washing machines, glass and silver pantries with electric buffers, dessert pantries with milk and ice-cream boxes, coffee urns, and also numerous roll and dish warmers. The ranges, being operated by gas, the kitchen is entirely freed of coal and ashes. The garbage is collected in large cans and sent to a storage-room, which is virtually a refrigerator, for there the garbage is kept frozen until removed from the building through the service-court to the university's farms.

On the same level as the storeroom, but situated under the club-house and portions of the halls, are the bakery, linen-room, and laundry. The bakery has two ovens gas-fed by a blast through surface-combustion burners. The gas is then turned off and the baking is done by radiant heat. There are also electric dough-mixers, cake-mixers, and ice-cream machines. The laundry is equipped with electrically propelled tumblers, washers, extractors, and a hundred-inch flat-work ironer. Here the kitchen uniforms and waiters' aprons are washed and ironed. A much larger mechanical equipment would be needed, no doubt, if linen table-cloths and napkins were used in the dining-halls. There has been, however, no need for table-cloths to cover the finely finished oak dining-tables, and paper napkins have been found quite satisfactory.

Beside the bakery and laundry is a large dining-room for the permanent force of employees, and there are adequate lavatories, shower-baths, and coat-rooms for them. The working force in the kitchen, including dish-washing, china, and glass pantries, is forty persons, of whom the chef and his assistants are French, the others chiefly Greeks. Adding to these the workers occupied in the storeroom, bakery, laundry, and linen-room, the cleaners, engineer, and night-watchmen, a total of eighty-five or ninety is reached, all males save four. The kitchen force is assured of sanitary living conditions by being housed by the university in a structure devoted to this use elsewhere in the town. Every employee eats at the dining-halls.

The dining-tables are set and cleaned by the force of regular employees, but the meals are served by student waiters, of whom there are about seventy-five. These students are required to do the serving only of two meals daily; at the remaining meal they eat with their companions. They are paid a fixed rate for every hour they work, and they usually earn each week more than they have to dispense for their table-board. That there are more volunteers for this work than can be accepted would indicate that the rôle is both agreeable and profitable.

The waiters eat in advance of the regular meal hours. Students breakfast from 7.30 until as late as 8.45, when the last bell is rung.

Luncheon is also a straggling meal, the promptness of the student to appear depending on the hour of his next class. Dinner, however, is quite a different event, for then the work-day is over and all eat together. No seats are allotted, each student being free to take any place he finds.

An important body in the present life at Princeton is the aviation class, consisting of 720 men, who are taking their eight weeks' course of ground work here. The university feeds, lodges, and instructs the men and receives for this a compensation from the government. The meal hours of the class are early and fixed, and all must appear promptly and eat together.

In closing, a few other figures may be given as a measurement of the scale of daily operation of the halls: 4,200 persons are now fed at breakfast, 1,350 at lunch, and 1,275 at dinner, the greater number at lunch being possible by the resetting of about 17 tables. From 130 to 150 dozen eggs are served at breakfast. From 450 to 500 loaves of bread are baked daily. Eclairs and cream puffs, between which, in the estimation of the students, there has always been close rivalry, mount into the thousands weekly and vie with an amount of ice-cream that is coolly defiant to wartime Hooverian influence. It should be added that all the fresh vegetables, all the corn-meal and potatoes consumed the past year were the product of the farms worked by the university, and the prospect is that much more will not only



South side of the kitchen building from the Little Court.

be so produced the coming year but much preserved for use next winter.

The foregoing data may acquaint inquiring architects and college officers with the "business end," so to speak, of the Princeton dining-halls. As institutions go, the task of operating this kitchen is seen to be neither abnormally large nor abnormally small. But to maintain from year to year a satisfactory commons for students, whose hunger never quite stills their critical faculties, is a feat not to be underestimated. In performing it at Princeton, Miss Madeline Pierce, the present superintendent of the commons, has achieved much in skilful handling of a plant which every effort was bent toward making perfect. Nevertheless, first-class equipment can go only so far in solving the many problems incident to keeping, preparing, and serving food. A skilful personal management is essential to produce real comfort for the inner man.

The Mechanical Plant of the Dining-Halls

Under North Madison is located the power plant of the dining-halls. It supplements the supply of steam provided by the central power plant of the university, about a quarter of a mile away, at the south end of the campus. The boiler under North Madison is of 80 H. P. and supplies steam to the equipment apparatus of kitchen, laundry, and bakery at a pressure of 80 pounds per square inch. The condensation is returned by means of automatic pumps. Domestic hot water is supplied by low-pressure storage-tanks and generators having a total capacity of 2,000 gallons.

Adjoining the boiler-room is a refrigeration plant in duplicate units each of 6 tons capacity and each driven by a 15 H. P. poly-phase motor, which receives current from the central plant of the university. The system is direct-expansion ammonia without brine, except for the ice-cream plant, where brine is used for freezing the ice-cream.

Adjacent to both the boiler and the refrigerating rooms is placed the air-supply fan, which takes the air from the courtyard through heaters and delivers warmed air to the dining-halls. This warm air is again pulled out through exhaust registers through a second fan located in the basement, which is so arranged that for economically heating

the air it can be recirculated through the big rooms. Thermostatic control is used to regulate the temperature of this air.

A second set of fans is located under the Tower and Cloisters, with heaters and pre-heaters, all supplied with steam from the heating system on the grounds. This set of fans furnishes automatically tempered air also to North and South Sage Dining Halls.

These fans provide for all dining-halls a system of blown air, automatically supplied, and removed by a system of fans so that at all times pure fresh air is available in the dining-halls proper. All apartments and severe exposures are supplied with direct radiation.

All kitchen apparatus requiring steam is fed by the boiler under North Madison. Over the range is a large ventilating hood, and there is another hood over the row of steam-cookers and kettles. Ducts from these hoods terminate in the loft over the kitchen, where, by means of a large motor-driven fan, all the foul air from the cooking processes is discharged through a louvered window in the west gable of the kitchen building.

The design of the mechanical features of the dining-halls is the work of Mr. Isaac H. Francis. The plant is capable of being run throughout the summer when the university plant is shut down. The steam for the kitchen and dependencies is then generated locally and power for the motor can be purchased from the public-service company. On the other hand, the underground piping is so arranged that the dining-hall plant can be shut down if occasion requires, and the university plant operate the kitchen in its entirety. Thus two sources of power are assured against any emergency.

Retrospect

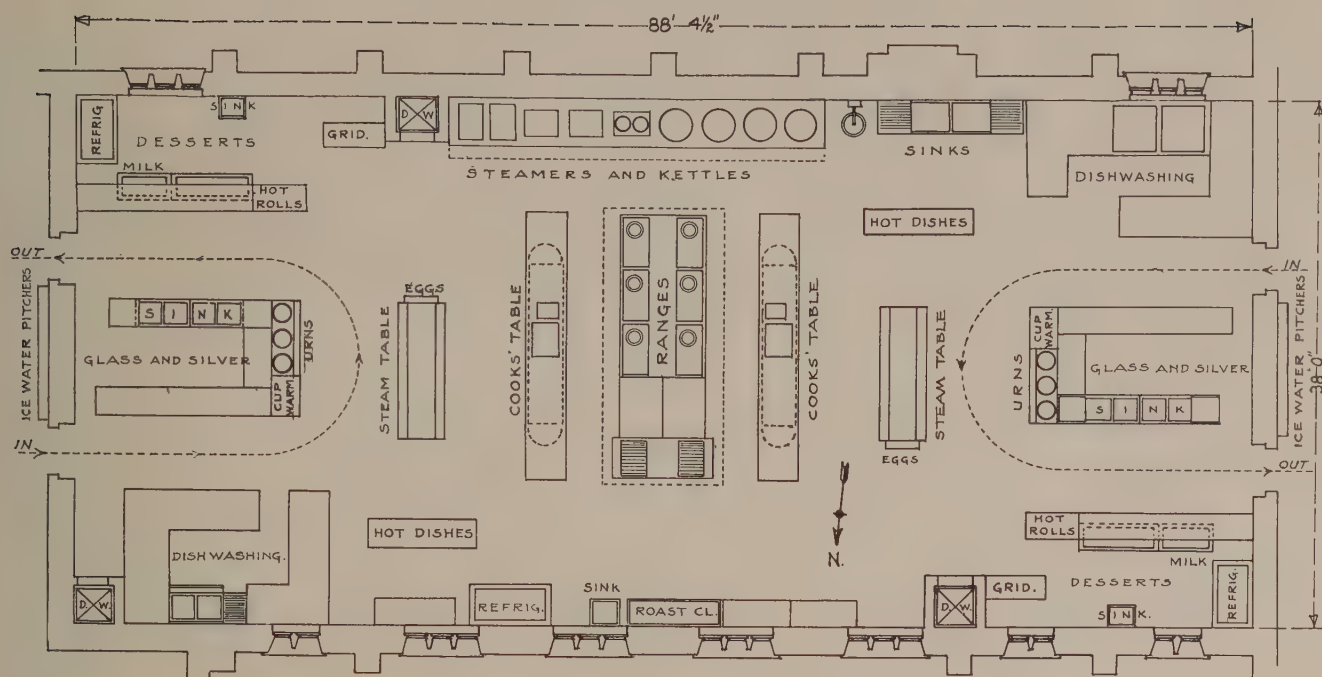
The designing and construction of the group of buildings here described occupied the architects nine years. Seven hundred and eighty-seven drawings were required. Studies for Holder Hall were first made early in 1909. Construction was begun in April of that year. Next followed the Tower. Hamilton Hall was completed in 1911, and thereafter the Cloister. The dining-halls were next built in two parts, the eastern being the first to be occupied. The corner-stone of North Madison was laid October 26, 1916,



Kitchen.



Kitchen.

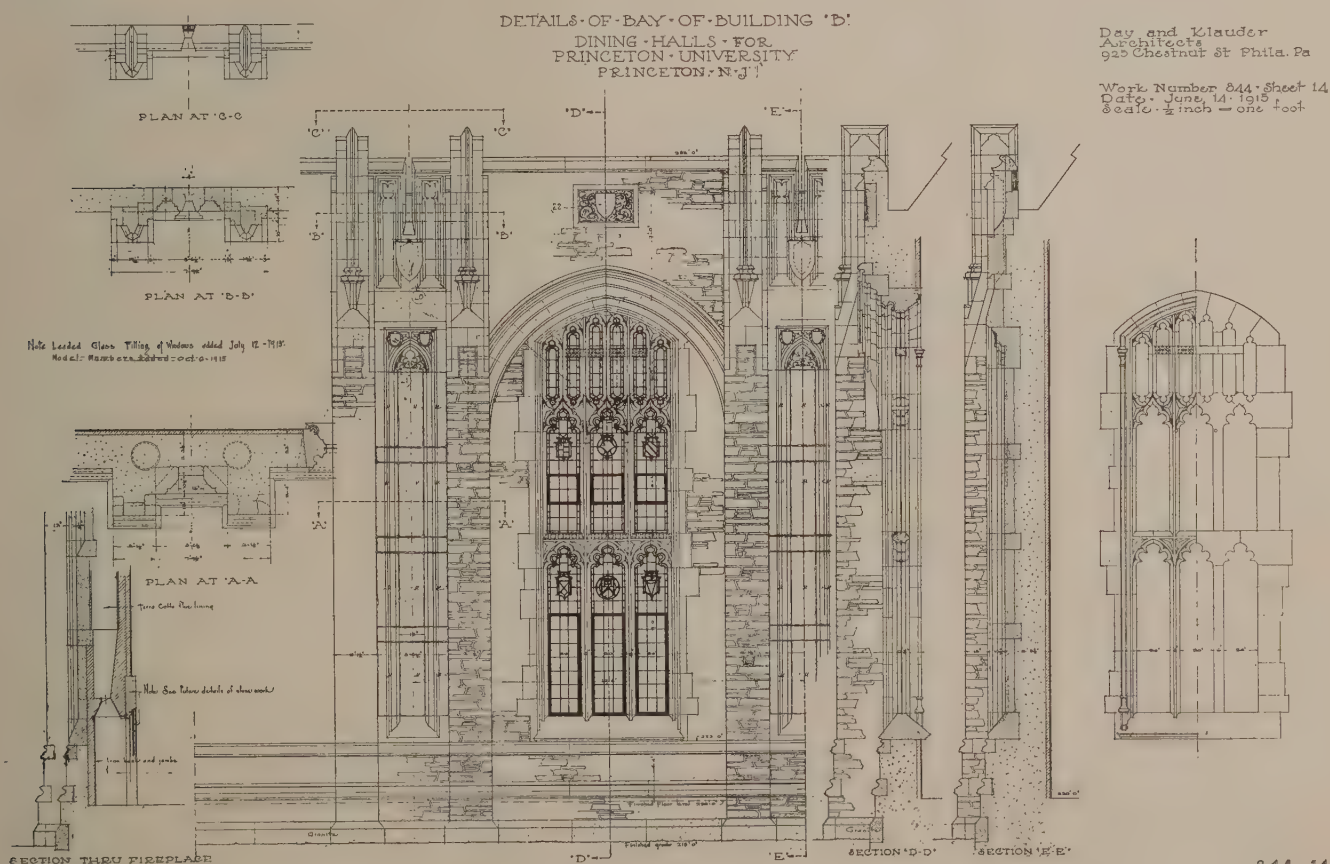


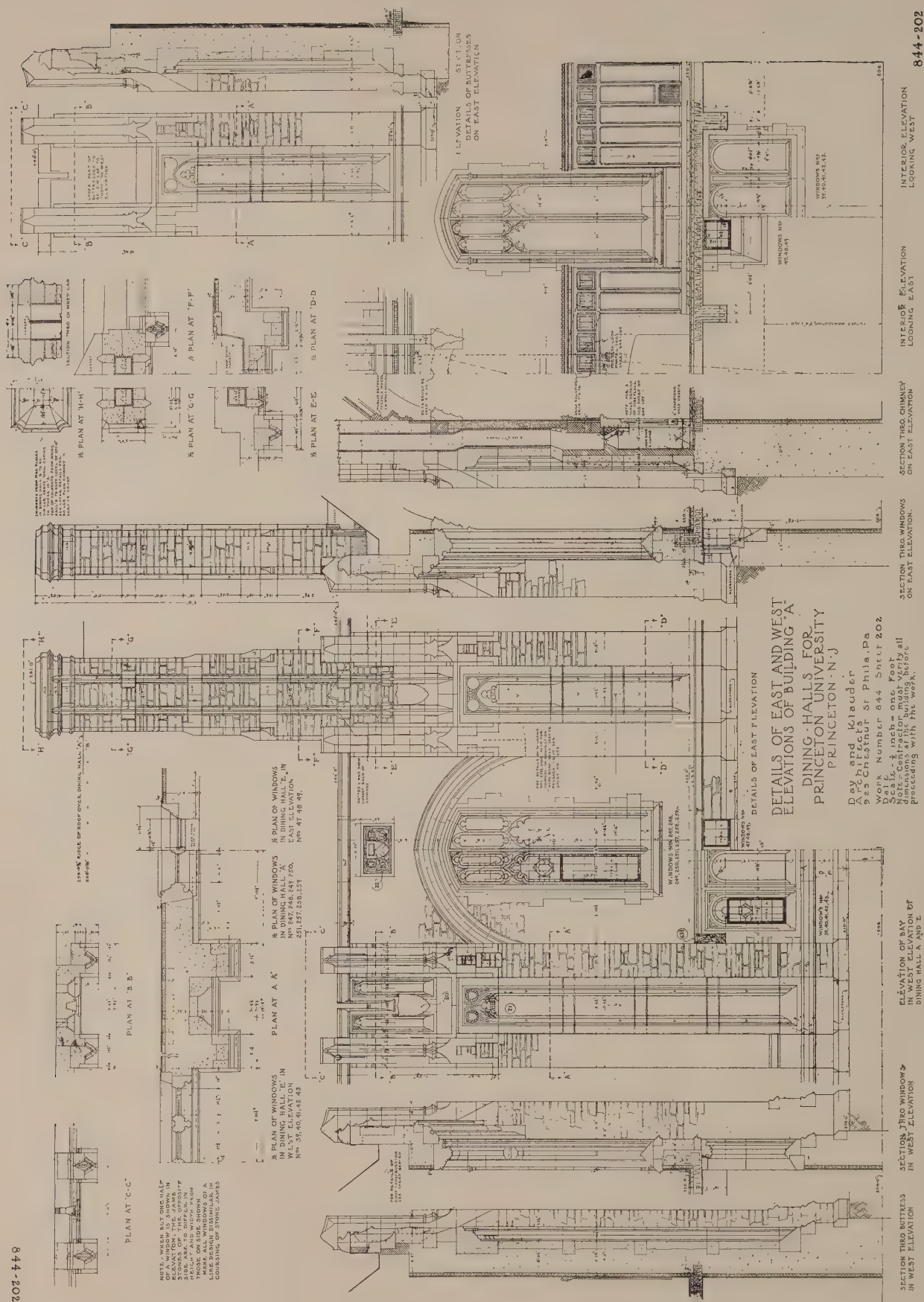
Kitchen Plan.

and the group of buildings entirely completed and occupied upon the opening of the college, October, 1917.

The university officer most intimately charged with building construction at Princeton is the Secretary of Business Administration. During the erection of these buildings this office was occupied first by Mr. Andrew C. Imbrie and subsequently by Mr. George C. Wintringer, the present incumbent.

The dormitories and dining-halls were built during the presidencies of Woodrow Wilson and John Grier Hibben, and during the entire period of study and construction Henry B. Thompson has been chairman of the building committee. To his sound common sense, breadth of vision, and discernment in architectural design is due in the largest sense the success of the work.





Editorial and Other Comment

Eyes Front!

THERE is no evading the ever-increasing sense of our national responsibility in this war nor the conviction of our own individual obligation to play our part as men. And none of us wants to evade any part of his individual duty—of the privilege that confronts us of meeting every hardship bravely—of discounting the realization of present loss by the fullest belief in ultimate victory and of the coming of the greatest years of prosperity in the history of the nation.

We are learning the finest lesson life can teach—the art of making sacrifices for others. And in learning it we are seeing with clearer eyes than ever before the things that make for real prosperity—national and individual. We have all been so busy with our own affairs up to the present that we have not had time to see far beyond our own door-yards. We have had no living, vital, intimate sense of our real personal obligation to the nation at large.

Thousands of architects and members of the building trades have joined the colors, and only at rare intervals are heard the lamentations of those who put their own affairs first; but for one slacker of this sort there are hundreds who are looking straight to the front with unshaken faith in the future.

Let us go on together with one determination, to play the game through, to meet its reverses with a cheerful smile, knowing that if we fail individually in courage we shame the whole cause to which we have pledged our lives and our possessions.

Some of those who cannot wear the uniform may at least give their ever-present and unfaltering assurance of support to maintaining in every possible way the fullest belief in the success of our boys in khaki and of our nation's just purposes. There is no room for the pessimist in present business. Granted hard conditions; but was ever any real and abiding success built upon other foundation than the knowledge born of struggle?

The architects are doing their share and will be called upon to do more. The full measure of the great talent available in the profession for large executive responsibility has not yet been fully recognized. It is ready for the call.

No looking aside—no looking backward—straight on to victory—to the re-establishment of prosperity through present sacrifice accepted as a privilege, and unchangeable trust in the future.

The Architectural League of New York in New Form

IT has long been an axiom that man is a gregarious animal, and, while artists and architects are not by their business so compelled to work in company as are most business men, for that reason they are inclined all the more to foregather

during their leisure hours, and it has often been observed that it is in these leisure hours that they learn most. It is instinctive in every man to desire company in his leisure, and to enjoy doubly what he enjoys in common with his friends, whether it be standing with one foot on a brass rail, or playing Kelly pool, or simply gossiping about everything—or nothing.

This is the basis of all club life; a place where one can meet and discuss the things he is interested in with people he likes, and where he can be reasonably sure of finding the people and things he likes without the trouble of making appointments in advance. So when he seeks for company he gravitates to that place where his needs for companionship may be fulfilled and where he is pretty sure to find people whose ideas are formed with an intelligence similar to his own.

Clubs are, however, of two kinds: the one based upon a community of *social* ideals and opinions, and the other based upon a common *business* or *professional* practice. So we have on the one hand clubs like the Union League and the Metropolitan in New York, the Chicago Club in Chicago, and the Metropolitan in Washington, whose membership is recruited from men whose habits of life and acquaintance are similar; while on the other hand clubs like the Players in New York, the Cliffdwellers in Chicago, and the Cosmos in Washington draw their membership from men presumed to have a common interest in art or science. Then there are the more highly specialized clubs, of both varieties: the college clubs, for example—purely social clubs, the members of which draw together because their interest and acquaintance have a common college ground; and the clubs the members of which have a single profession or business, such as the Salmagundi in art and the Banker's in business, or the Lamb's in the dramatic world.

The professions have, as a whole, been less apt to form specialized clubs than the businesses, perhaps for two reasons, the first being that they are not as wealthy and the second that so many professional men are told (and believe) that it is "good business" to belong to a general club and wrong to herd by themselves. This second reason seems a pretty poor one—no professional man ought to depend upon his social charm for his success, any more than a woman should use her sex to advance herself; nor are even those professional men who act upon this theory very persistent in carrying it out. One is very apt to find all the architects or all the doctors in any particular club sitting in one corner arguing hotly over some "trade" question, while the non-professional members have sought safety from being bored to death, in the pool-room.

Nor is the possible business advantage that a man can gain from the shabby trick of picking up business at a social club sufficient to compensate him for the loss of ideas which come to the habitué of a club composed of his own profession. No one will deny that the architect in a small city or the doctor in a country town, who learns only at second or third hand, through the medium of a professional journal, of new processes, methods of applications, can never quite keep up to the march of progress as can the man to whom these things can be explained face to face by the inventor or discoverer. He cannot ask the questions he would like to

ask, the cold written word is not illuminated by the inflections and the gestures of the narrator, and too often the professional man cannot write out the meaning which he can readily transmit by word of mouth. Now, the man who sees his professional associates not at all, or only in some cold technical "congress," puts himself in the place of the small-town professional man and misses the companionship which should be the breath of life to him. We may have occasional geniuses who can work better alone, but contact intimate and constant is for most men a far more powerful stimulus than solitude.

For many summers there lived in the little town of Cornish, New Hampshire, Augustus Saint Gaudens, Charles A. Pratt, Maxfield Parrish, and Herbert Adams—a miniature art club; and, while it may be that separated they would have been as great, it must be admitted as a curious incident that men so eminent in art as they should have chosen one small town. Is it not rather likely that their daily contact with each other spurred them on to accomplishment?

We cannot all expect to be Parrishes or Platts or Saint Gaudens; but we can all of us hope to become our best only under the sharp sting of criticism and advice offered with the freedom that only friendship can give and in circumstances that provoke discussion, with its inevitable personal application. We architects are, on the whole, as free from professional jealousy, as willing to transmit to our coworkers our own hard-gotten experience, and as interested in our profession as any group of men in the world; yet while there are a multitude of architectural societies there are but a very few architectural clubs; and it is to the number of these that the Architectural League of New York now proposes to add.

The league is in a peculiarly fortunate position in this respect. It has a very strong membership both in numbers and in talent; it has a record behind it of years of exhibitions conducted without fear or favor, and of a social life occasional, it is true, but none the less vital and agreeable. Its membership has never been held down to architects who had "arrived"; its hospitality has been as open to the new draftsman of serious purpose and good personality as to the most famous of our architects, and being fortunately not limited to architects alone the members learn by personal contact how their efforts are regarded by their coworkers in kindred lines of art. Its purpose is, and always has been, to establish more friendly relations between the architects, the decorative painters, the sculptors, and the landscape architects, and since its non-resident membership is large it will act as a focal point to which men from other cities will be drawn and from which they may gather much information of value to them.

Another thing: it will give to the many draftsmen in the New York offices a decent and attractive meeting-place of their own. Many of these men are from distant parts of the country or from other countries; many of them graduates of colleges which have no college clubs in New York or graduates of no college at all, yet gentlemen and artists in architecture. These men come to New York, which offers them more of the things that every capable and imaginative man wants than any other city in the world. There are here museums, galleries both private and public, libraries and art schools beyond criticism, wisely open to the men who work by day and struggle to completely educate themselves by night, but of social life it offers them little or nothing. Their salaries are meagre, they live in hall bedrooms or crowded together in cheap apartments, they eat where they can afford what is served them; for amusement

they go to the movies or the top galleries of the theatres, often alone; or to the streets for what questionable companionship can be sought there (if the young men were kept off the streets we wouldn't need to worry about the young women); and when they want to talk over their professional problems they must do it in their crowded bedrooms or in the dirt and discomfort of an atelier.

This is not an exaggerated or foolish statement of a draftsman's life. I know. I have lived it.

Now, in spite of these things the men have a good time: they love their work; they like each other, and they should, for they are a splendid lot of men; but their good time is made harder than it should be; their vitality is decreased by poorly cooked and hastily eaten food—who takes time to eat properly in a Childs's restaurant?—and they have no opportunity of doing what they have come to New York for—of getting in touch with the heads of their profession, except as they may meet them in the atelier or the office.

A social club as a part of the league, or rather the league as a social club will change all this for a great part of the men, and the architects and painters who have "arrived" will benefit as much by companionship with the draftsmen as will the draftsmen by contact with them. There is no criticism so pungent, so free from prejudice, and from so new and stable a view-point, as that of the draftsmen, who, closer to certain problems than their employers, are farther from the limiting circumstances of traditional methods and clerical restrictions which embarrass the architects.

We all know that we become set in our ways of thinking as we grow older—each of us has some stone of his own to add to the cairn of art; and having added it we are apt to rest content, forgetting that we perhaps possess other stones which may be of value to the world. To change the metaphor: having ploughed our groove in the world we are oftentimes content to polish it and without desire to plough out new ones; it is the draftsmen who perceive this first, and it is their free criticism which will help us to begin again.

The league's experiment may end in failure. The times are certainly not favorable to any new thing: costs are high, draftsmen by the score have become drafted men, or rather have entered the service of their country in one way or another; the ranks of the young, vigorous, and fit architects, artists, and sculptors have become ranks of infantry; and yet the league has courage to try the scheme. It is good, it is wise, it is necessary; may it succeed!

Give Your Old Cotton and Linen Cloths to the Red Cross

AMERICAN manufacturers, architects, and all draftsmen are called upon to render an important service to their country. When the workman has finished with the piece of cotton or linen cloth used in his trade it is flung aside to be destroyed. The Red Cross is asking now for that discarded material. All over the country thousands of women are earnestly engaged in the manufacture of surgical dressings to be used in the hospitals for our wounded soldiers and sailors. The problem of getting enough white goods for this work is enormous. As long as the war goes on the work must go on if we are to live up to the humanitarian ideals typified to the world to-day by the Red Cross.

Two kinds of cloth are available—draftsman's tracing-cloth and old linen and cotton articles to be donated from private households and, often in large quantities, from hotels.

The Annual Exhibition of the Architectural League

ON the opening night the present and past officers of the League, wearing the robes and carrying the emblems and banners of their several guilds, escorted the medal-winners through the exhibition to seats prepared at the west end of the Vanderbilt Gallery, where a stage or tribune had been erected for the occasion. The president of the League, H. Van Buren Magonigle, outlined briefly in his opening address the aims and objects of the architects, painters, and sculptors constituting the membership of this artistic association, and defined the purposes of their annual exhibition. The medals of honor were then awarded to Benjamin Wistar Morris for his great success in architecture, and to Paul Wayland Bartlett on the record of his work in sculpture. This year no medal was awarded for mural painting. The Avery Prizes for the Collaborative Competition, in which architects, painters, and sculptors work together on the same project, was this year awarded to George Licht, Raphael Menconi, and W. E. Gates. Mr. Menconi also received the Henry O. Avery Prize for sculpture. The President of the Architectural League then pointed out, as briefly and as clearly as possible, the vital and increasing interest felt by architects in all the crafts and industries which are allied to architecture and which contribute so largely to the comfort, utility, and beauty of all American homes.

Mr. Magonigle then stated that to emphasize the vital importance of the building crafts the officers of the League had given honorable awards to twenty-one of the collective decorative and craftsmanship exhibits now on view at the

Fine Arts Building in West Fifty-Seventh Street. The names of the recipients of these awards were then announced, with general and prolonged applause.

The exhibition is announced as "A Co-operative Building Show." It is certainly different in every way from the traditional League shows and will possibly have a wider appeal for the general public.

The galleries of the Fine Arts Building at 215 West 57th Street, between Seventh Avenue and Broadway, are brilliant in color and full of fine furnishings. The public will see the products of the leading craftsmen-manufacturers as well as some work by distinguished American architects.

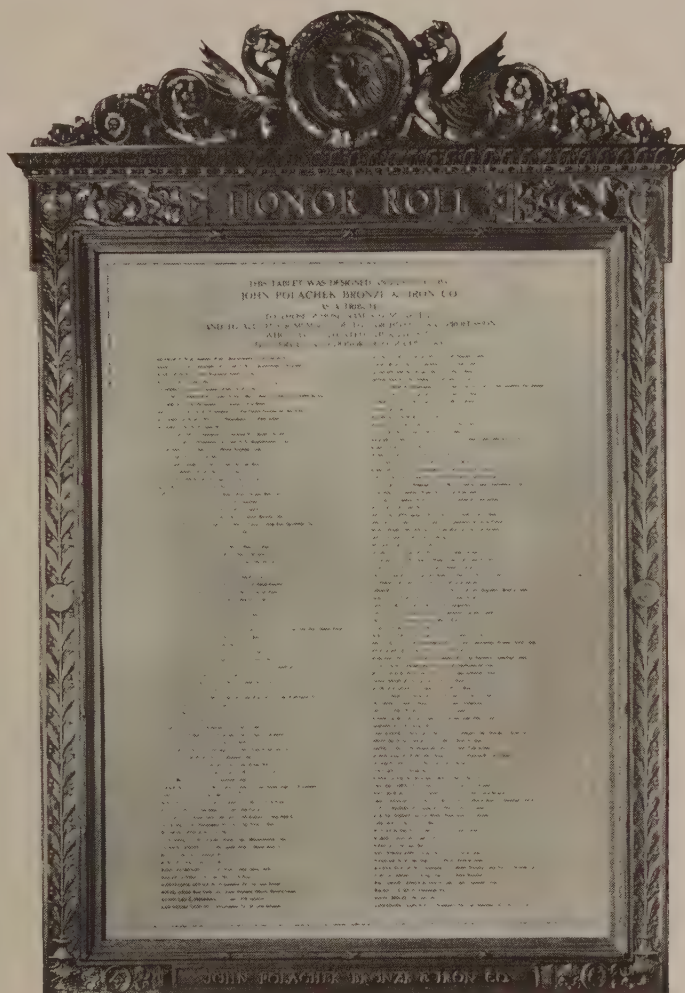
Every one interested in the home-building or home-furnishing problem will find the show instructive.

The craftsmen who work in burnt clay, the weavers of fabrics and tapestries, the ornamental plasterer, the carver of wood and stone, and the importer of antiques show examples of their skill together.

Many will carry away the impression that the original purposes of the Architectural League Show have been rather submerged in the advertising exhibits.

The exhibits include: Stained, leaded, and Tiffany glass, bronze work, wrought iron, other metals, lighting fixtures, hardware, ornamental

terra-cotta, ornamental floor tile, faience, pottery mosaics, marble and bronze inlays, architectural wood-carving, architectural stone-carving, architectural modelling, cabinetwork, American furniture, rugs, textiles, batiks, leather-work, garden furniture, wire lanterns, mantels and fireplaces, mirrors.



This beautiful bronze tablet, designed by the John Polachek Bronze & Iron Co., and dedicated to the members of the architectural profession who are in the service of our country, was suggested by and the names copied from the Honor Roll first compiled by and published in *ARCHITECTURE*. It may be seen in the Vanderbilt Gallery at the present exhibition of the Architectural League.



English Church Woodwork*

By F. E. Howard and F. A. Crossley

THE mediæval woodwork of England is one of the most magnificent legacies of our forefathers. It is extraordinarily difficult to realize that our race, now enthralled in the wonders of mechanical science and one of the least artistic in the world, was once equally devoted to the delights of beautiful craftsmanship. Yet this is the case. The Middle Ages, and above all the fifteenth century, produced in vast quantities the most wonderful woodwork the world has ever seen; and that of England, though its superiority or inferiority to that of the Continent is a matter for dispute, is of the greatest importance. It has been particularly fortunate in escaping destruction, though it is pitiful to reflect that not more than a tenth part of the lovely church fittings of pre-Reformation days remains for our admiration, and that much of this work has suffered so grievously from time, neglect, and mutilation as to be almost unrecognizable by its designers. Of the hundreds of fine reredoses which are known from documents to have once existed, only a few scanty and unimportant fragments remain; while rood-lofts, once the most magnificent adornment of every parish church, are now so rare that when, by exception, one has survived, latter-day antiquaries have been at the pains of inventing absurd legends to the effect that these purely parochial ornaments of the church have been brought from an abbey at the dissolution.

In the face of this wide-spread destruction it is marvellous that so much is left for the delight of those who care to seek for it, not only in those well-known architectural districts, the west country and East Anglis, but in practically every county. There are few parts of the country which do not possess interesting and beautiful local types of mediæval woodwork. A lovely group of timber porches in the south-eastern counties, the grand roofs of Cheshire, the stately screens of Yorkshire are instances, and the enthusiastic stu-

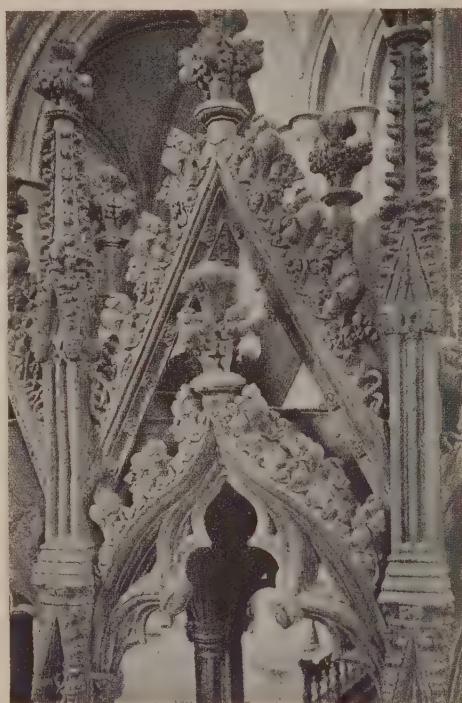
dent will find similar remains of beautiful and strongly constructed woodwork almost everywhere.

Nevertheless, until recent years it has passed almost unnoticed. The astounding richness of the Devonshire churches in elaborately carved woodwork appears to be known to comparatively few. Vast numbers of visitors see the magnificent screen at Dartmouth, but they are left with the impression that it is an isolated phenomenon or a relic of some monastery, whereas, beautiful as it is, practically every west country church once had a screen rivalling or even surpassing it in beauty, and several hundred still

retain one. Again, thousands of visitors to the east coast are entirely unaware that they are in a district where scores of fine churches are still glorious with mediæval carving and painting and that this work is one of the highest achievements in art that the English race has attained. In Wales the churches are humble and certainly not calculated to catch the eye of the tourist. They are, indeed, utterly insignificant amid their solemn surroundings of great hills. Very few visitors ever enter them, but if by chance they do so they cannot fail to be impressed with the skill and devotion of those mediæval wood-carvers who could make even these mean structures glorious with rood-lofts such as these of Llananno.

It cannot be too strongly emphasized that fine woodwork, though now found in comparatively few churches, was once possessed by all. Every church had its pews, its rood-loft, its font-cover, and there is no reason to suppose that those which have survived have escaped destruction because of their exceptional beauty. Indeed, the reverse is far more likely.

What is the secret of the charm of mediæval woodwork? In the first place, the ancient craftsmen were gifted with an eye for proportion and a sense of scale which can only be properly appreciated by comparing a work of the Middle Ages with some effort of a modern craftsman whose artistic senses are blunted by the countless hideous things he sees daily, while his brain is jaded with the conflicting teachings of dozens of false prophets. In the second place, the elements with which they had to deal—shafts, pinnacles, tracery, canopies, trails, and crestings—were exceedingly beautiful in themselves. No one but a modern genius could fail to combine them into harmonious compositions. Then again the methods of the mediæval craftsman were so human, so full of energy, so devoid of effort. Never having seen the results of slave or machine labor, he had no desire to emulate it. Minute accuracy and exact symmetry were not esteemed as virtues, nor was smoothness and regularity of surface regarded as an end in itself. If one cares to ex-



Beverly minster, Yorks: Detail of sedilia.

* From "English Church Woodwork—A Study in Craftsmanship During the Mediæval Period A. D. 1250–1550," by F. E. Howard and F. A. Crossley. (New York, Charles Scribner's Sons.) 4to, \$13.50.

No field is richer for the student in search of the real spirit of the Gothic expression in wood than Great Britain. In this volume have been gathered the results of many years of research. It includes the most comprehensive showing of plates chosen from a collection of thousands of photographs and drawings covering structural woodwork, porches, doors, roofs, timber vaults, fittings for the sanctuary, choir fittings, screens, roods and lofts, fittings of the nave, pulpits, pewing, font-covers, tombs, and movable fittings. Especially valuable are the series of sectional drawings of roof-construction. It is a book that will prove a most valuable reference for the architect's library and a source of information and inspiration for the interior decorator. The volume is dedicated to the memory of the late Herbert Batsford, the London publisher of architectural books.

amine a bit of mediæval tracery, one will generally find the remains of the setting-out lines deeply scored into the wood, and a glimpse will be obtained into the actual processes employed. The carving is a true product of the chisel and the gouge, not a reproduction in wood of a clay original model.

Though the woodworker of the fifteenth century appreciated the value of repetition and was aware of the rich effects which can be produced by the reduplication of the same element, his duplicates are scarcely ever exact. Here he has run against a bad knot around which the moulding is made to curve; there his tool has slipped and he has been obliged to modify the design to hide the defect. Though figure sculpture was not a strong point of the English woodworker, he excelled in the comic element, without which much mediæval carving would be almost too pretty. The value of the grotesque can only be appreciated fully when one contemplates examples of Victorian restorations in which mediæval grotesques, thought by those supersensitive souls to be too coarse for a place of worship, have been superseded by innocuous angels. There is no contrast, and, just as it appears to take good and bad men to make a world, so the beautiful and the grotesque must be combined to produce woodwork with the charm of that of the Middle Ages. Not that mediæval grotesques symbolize evil. Many of them are the most engaging beasties and devils, possessing in a high degree the beauty of extreme ugliness, while many of the most hideous were employed to teach the most moral stories.

It is a matter for great thankfulness that the passion for the destruction of mediæval woodwork has abated within the last few years, a result largely due to the reawakening interest on the part of the public, educated by the numerous well-illustrated books on the subject which have lately made their appearance. Nowadays a screen or a font-cover cannot disappear without a hue and cry being raised and considerable unenviable publicity. A few years ago many splendid examples of mediæval art in out-of-the-way places were absolutely at the mercy of the local authorities, often ignorant and fanatical; now, with the aid of the cycle and motor, they can be kept under surveillance by ardent antiquaries. The great danger is that of over-restoration, which has already deprived many gems of me-

diæval art of their interest and authenticity. But there is a lesser danger, one which has already wrought untold damage. Periodically, at the great festivals of the church, and more particularly at that still more popular festival the Harvest Thanksgiving, the most exquisitely wrought ornaments of the church are shrouded and hidden by trails of

untidy greenery or absurdly adorned with vegetables. Could anything be more ridiculous than this attempted "decoration" of that which is already supremely decorative? But there is cause here for tears as well as laughter, for this greenery cannot be artistically disposed without the aid of stout nails driven into the old oak, while sharp wires or dirty wisps of string are often left permanently clinging to the screen, ready for the next festival. On every hidden ledge, above all, on the top of the screen or in the upper niches of the font-cover, there may be

found lumps of decaying moss or dead ivy leaves, attracting all kinds of filth and setting up decay. The clergy are gradually awaking to the mischievousness of these orgies of floral decoration, but it is difficult to reach or to influence their lady parishioners. In time, perhaps, even they will realize that every fragment of mediæval art is irreplaceable and precious, and that until we are capable of producing better work (and this is unlikely to happen for many years) it is our duty to do all we can to pass it on intact to the next generation, who may be better able than we to understand its excellence.

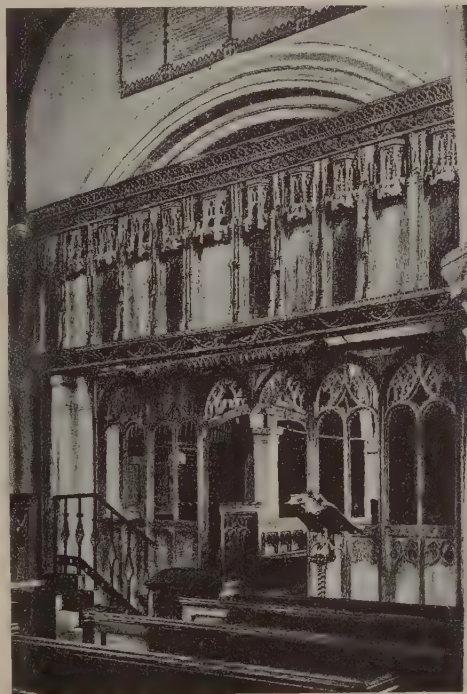
Under normal conditions it was inevitable that the art of wood-working should flourish during the later Middle Ages, but while some districts are very rich in mediæval woodwork, in others it has been almost entirely destroyed in the various social and religious disturbances which have arisen since the Reformation. It may also be noted that in some parts of the country the woodwork reaches a very high

level of design, while in others it is somewhat mediocre.

There was great enthusiasm for religion among all classes, particularly among those of comparatively humble birth, for the horrors of the Black Death of 1349 had driven them to seek consolation in the ministrations of the church. Beauty and religion were inseparable to the mind of the mediæval Englishman, whose way of showing his love toward God was to worship him with beautiful ceremonies in beau-



Chester Cathedral stalls, north side of choir.



Flamborough, Yorks: Late fifteenth-century rood-screen and loft.

tiful places. Money was plentiful partly because of the simplicity of the wants of the average citizen. The standard of comfort was not high, sumptuary laws prevented much needless extravagance, and expensive sports had not yet been invented. The churchman, therefore, had both the will and the means to provide good woodwork for his parish church, in which he took a great delight. He would even have done so had the work been costly, which it was not. Timber was very plentiful and good in almost all districts, and the methods of the mediæval craftsman were conducive to cheapness. He hated tiring, time-wasting labor, and mechanical perfection of finish was unknown to him; he studied how he could obtain the most delightful effect with the minimum of trouble. The usually accepted idea that in these far-off days the wood-carver took infinite care and pains over his work, while the modern worker is slap-dash and inclined to jerry-build, is absolutely at variance with the facts. The mediæval worker always had an eye to the general effect and cared very little for open joints, twisted timbers, irregular setting out, and rough surface, provided the complete work was strong in construction and beautiful in design. The average modern craftsman, working blindly from the design of the architect, gives his whole mind to producing a perfect regularity both of setting out and surface. His curves are perfect segments of circles and his mitres are worked with meticulous care. He wastes hours in minute corrections and adjustments and in tedious rubbing down with sandpaper. For these reasons, in spite of the greater efficiency of modern tools, which should make for greater rapidity and cheapness of production, woodwork was much cheaper in the Middle Ages than at the present day.

Besides all this, there was a healthy state of competition. Parishes vied with one another as to who should make their church the most beautiful, while between craftsman and craftsman the competition must have been strenuous, and certainly tended to raise the standard of design. Difficulties of communication rendered the employment of local workmen very advantageous, and as a consequence the parishioners took a far greater interest in the work, which they could see growing in the wood-carver's shop in their own village or in the market

town, than if it had suddenly arrived in the church from some far-off manufactory.

And if mediæval woodwork is remarkable for its quantity, it is even more notable for its quality. The general high level of design may be attributed to the system of apprenticeship by which the apprentice learnt all that the master knew and was taught to improve upon and develop his knowledge, not to be original or to branch off on his own account upon new and profitless experiments. Nor was he hampered and confused like the modern craftsmen by a slight knowledge of all the architectural styles of all periods and countries. He knew no art save that of his own land and that of his own immediate ancestors, and cared for none but that of his contemporaries. This simplicity of aim was lost in the sixteenth century, owing to

the influx of foreign craftsmen with different traditions and to the changes of the Renaissance, and it can never be recovered.

It is probable, then, that woodwork would have flourished equally strongly in every part of the country but for various adverse influences. In some counties there were important manufactories of tombs and effigies. In the Midlands these were freely patronized, and the competition of the tomb-maker adversely affected the woodworker. The best woodwork counties are generally poor in monumental remains, while those where the tomb-makers flourished are comparatively weak in woodwork. In Somerset, where woodworking reached a very high level indeed, still better work would have been done if so great a proportion of the wealth of the county had not been devoted to the abnormal development of the tower.

Some counties, particularly those in the extreme north, had no natural advantages in wealth or materials. They were poor in soil and their populations were small; they were constantly subject to raids and invasions.

It is not surprising that Cumberland, Westmorland, Northumberland, and Durham are about the poorest counties in England for mediæval woodwork.

Indeed, the wonder is that what they do possess is so good and refined in design. Wales presents a very interesting problem. Although possessing few natural resources, and at no time particularly prosperous, it produced much work which surpasses that of many of the wealthy English counties.



Badingham, Suffolk: Section of roof of nave.



Llanno, Radnor: Coving of rood-screen.

The evil effects of war and rebellion probably account for the comparative unimportances of the woodwork of the Midland and Home counties. These were most affected by the various risings of the fourteenth, fifteenth, and sixteenth centuries and by the long Wars of the Roses, though the latter were waged with comparative humanity with very small forces and appear to have interfered with the crafts very little. The churches were generally spared, and when, by exception, they were destroyed, as at Stamford, they were rebuilt, on the conclusion of peace, far more beautifully than before, with splendid woodwork, judging from what has

escaped the iconoclasts. But the Home counties were perpetually undergoing political disturbances and uprisings, and in this country politics and the arts cannot flourish side by side.

The precise effects of pestilence upon mediæval crafts has only just begun to be recognized and studied. It may be that the comparative freedom of the maritime counties from the terrible epidemics which broke out from time to time, as compared with the severity of the outbreaks in the Midlands, may account for the excellence of most of the counties on the seacoast from the point of view of wood-working.

The Museum of French Art

THE Museum of French Art, 599 Fifth Avenue, was founded in New York in December, 1911. It is national in its scope and was the first expression in the United States of the Institut Français aux États-Unis—a movement started in Paris in June, 1911, by distinguished citizens of France and the United States to extend a wider knowledge of France, her language, her literature, her sciences, and her arts.

The Museum is the art section of the Institut Français aux États-Unis; its members have also the privileges of the science section of the "Institute" (The Entente France-America—Commerce, Industry and Science Society, Inc.) and of the literary section of the "Institut" (The French Union).

The "Institut" aims to be a centre in the United States for those who are attracted by the French language and literature, French drama and music, French science, and by the artistic, natural, and architectural beauties of France. It appeals to all those who desire to increase the economic relations between the two countries.

The Museum is making collections in the various branches of French art (painting, sculpture, engraving, numismatics, ceramics, laces, textiles, furniture, etc.); it is assembling a reference library covering the art, science, literature, and history of France, and a circulating French library of fiction, etc.; it is bringing from France distinguished lecturers (through the revenues of the John Sanford Saltus Foundation); it is furnishing free, practical knowledge of French arts and crafts and of the French language to workers; it is stimulating higher standards in taste; it is extending a knowledge of French music and literature.

The Museum is supported entirely by voluntary contributions—it seeks large endowments—it needs gifts for its collections and an increase of membership to help defray its running expenses to which its trustees are contributing; these expenses are rapidly increasing as its usefulness is enlarged.

The "Institut" is extending its work in large centres of the United States as fast as opportunities and its revenues will permit; it seeks the co-operation of all public-spirited citizens; it appeals to all friends of France. Their recent loan exhibition of French art, Gothic period to the Régence, was largely attended.

Book Reviews

THE STRENGTH OF STRUCTURAL ELEMENTS. A text-book for students, engineers, and architects. By Ernest H. Sprague, Am. Inst. C. E. 200 pages. With examples, 5 plates, and 112 illustrations. 16mo. \$1.75 net. D. Van Nostrand Co., New York.

BANK AND PUBLIC HOLIDAYS THROUGHOUT THE WORLD. This book is probably the first compilation of the sort ever published. It gives the holidays which banks and business houses in every important country and colony in the world are likely to observe. Published by the Guaranty Trust Co., New York.

American Craftsmanship at the Arden Gallery

THE directors of the Arden Gallery, at 599 Fifth Avenue, call the attention of those who are at all interested in fine American craftsmanship to the unusually excellent reproductions of old English and Italian furniture which are now in the gallery.

They point out the fact that the discriminating public will realize that these copies preserve the feeling and spirit of their originals and that their sincerity and decorative effect deserve special attention.

American artisans are now ready to have their work compared with European work on a basis of merit, so that the imported product will not always be given the preference merely because it is imported. Standards have been established, but it is only by recognition of what has already been accomplished that further progress will be encouraged and assured.



Sixteenth-century walnut side-table, Arden Gallery.

Announcements of Office Changes

The firm of Janssen and Abbott, Architects, has been dissolved. Franklin Abbott will continue the practice of architecture in association with Julian Peabody, Albert Wilson, and Archibald M. Brown at 389 Fifth Avenue, New York.

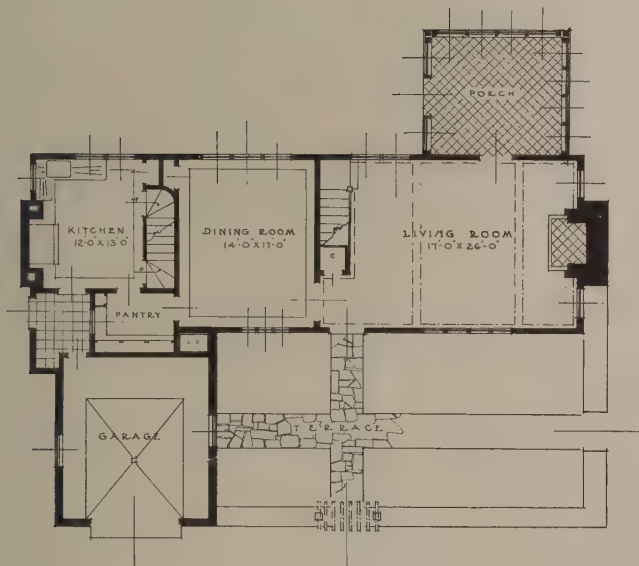
Frank B. Gray, Architect, announces the removal of his office from 10 South La Salle Street, Chicago, to 344 Coulter Block, Aurora, Ill., on December 20, 1917. Successor to Worst & Shepardson, Architects.

Benno Janssen wishes to announce that after the 31st of December, 1917, he will continue in the general practice of architecture with offices in the Century Building, 7th Street, Pittsburgh, Pa. The firm of Janssen and Abbott has been dissolved.



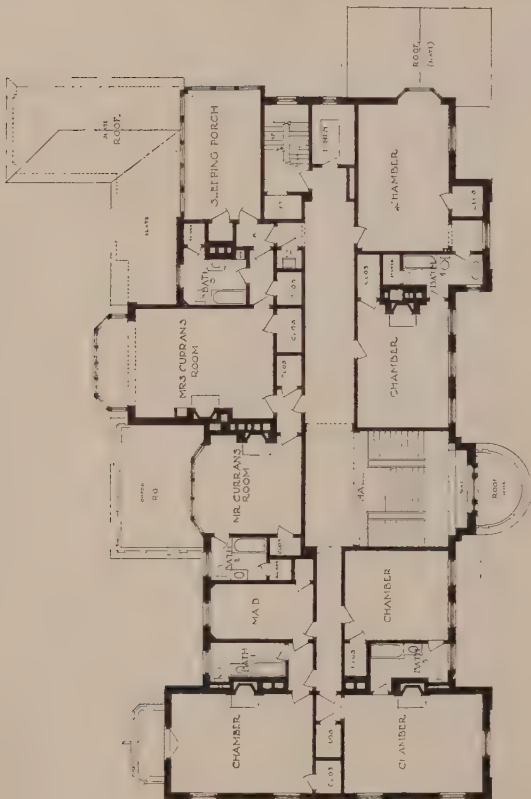
HOUSE, HARRY W. CRAW, WHITE PLAINS, N. Y.

Caretto & Forster, Architects.



HOUSE AND PLANS, HARRY W. CRAW, WHITE PLAINS, N. Y.

Caretto & Forster, Architects.



HOUSE AND PLANS, M. J. CURRAN, PHILLIPS BEACH, MASS.



Peare & Quiner, Architects.



MAIN ENTRANCE, HOUSE, M. J. CURRAN, PHILLIPS BEACH, MASS.

Pearce & Quiner, Architects.

Architects and Their Practice

By "Experience"

IT will naturally be asked which is the best field for a young architect to commence practice in, a great metropolis or a medium-size or small city. Many different things must be considered before any definite or tangible answer can be given to this query.

If one has abundant means and can afford to "live and wait," there is no question but that the metropolis is the best place. On the other hand, if one has little capital and must toil from sun to sun to make both ends meet, the smaller city is preferable.

If he allies himself with some well-established man or firm it matters little where he may cast his lot.

My reason for placing the metropolis first is that there seems to be a glamour about a great city that dazzles and attracts clients from the smaller cities and towns, no matter how well they may have been served in the latter.

Personally known to me are men who practised for years in small cities with only ordinary success, who finally obtained the wherewith to open an office in a metropolis and in a few years became known throughout the land as great architects with a nation-wide clientage; while in the small city they were hardly known. Now, the metropolis did not make these men any better architects than they were before they became some of its denizens. Nor did it add one atom to their attainments or skill. They had equally good facilities and were just as capable in every way in the small as in the large city, yet in one they became eminent, while in the other they would have remained commonplace.

It is hard to diagnose such cases, yet we know that they constantly occur in all walks of life. Let me illustrate this by an amusing incident of this kind, both of the parties being friends. A, resident of a small city, had trouble with his eyes and went to B, the leading local practitioner, who examined his eyes, told him what his trouble was, and prescribed for him; but A was not satisfied, and as he frequently visited a not distant metropolis went to its great ophthalmic hospital. He was informed that the specialist whom it would be necessary for him to see was only at the hospital twice a week and could only be seen by appointment; so A arranged a date, and made a special journey to keep it. You can imagine his amazement when he was shown into the presence of the noted man, to be greeted with, "Hello, A, I thought I fixed you up at home. What are you doing here?"

Here was a man so highly thought of by his professional brethren that he had been chosen to occupy a chair in a great hospital, yet was not considered good enough by a fellow citizen to handle his case. Of course A knew nothing of B's achievements; if he had he undoubtedly would not have done as he did and would have been perfectly satisfied with the local practitioner. He certainly would not have obtained better advice or more skilful treatment in the great city than in the small one, but if he had not happened to blunder on to B as he did he would without question have deserted him for probably a far less skilful man. This incident fully illustrates and emphasizes the almost uncanny influence that a great city has on most people. They are perfectly willing to give greater latitude, spend more money, and receive less efficient service from men of our profession who practise there than from any local man.

I have always maintained, given dollar for dollar, that well-trained men practising in the smaller cities, or even towns, could and would do just as good work as those located in the large cities. I have known of innumerable cases where clients have limited the local architect to a certain amount and when he has honestly adhered to the stipulation and prepared his sketches accordingly have accepted sketches without a murmur from architects in some large cities which could not be executed for less than twice the sum named. This is manifestly unfair, but the client seems to think little and care less for what he has done; he has designs for a handsomer building than the local man drew, forgetting that if the latter had worked with the intention of spending twice as much on the building his sketches would in all probability have been just as good if not better than those accepted.

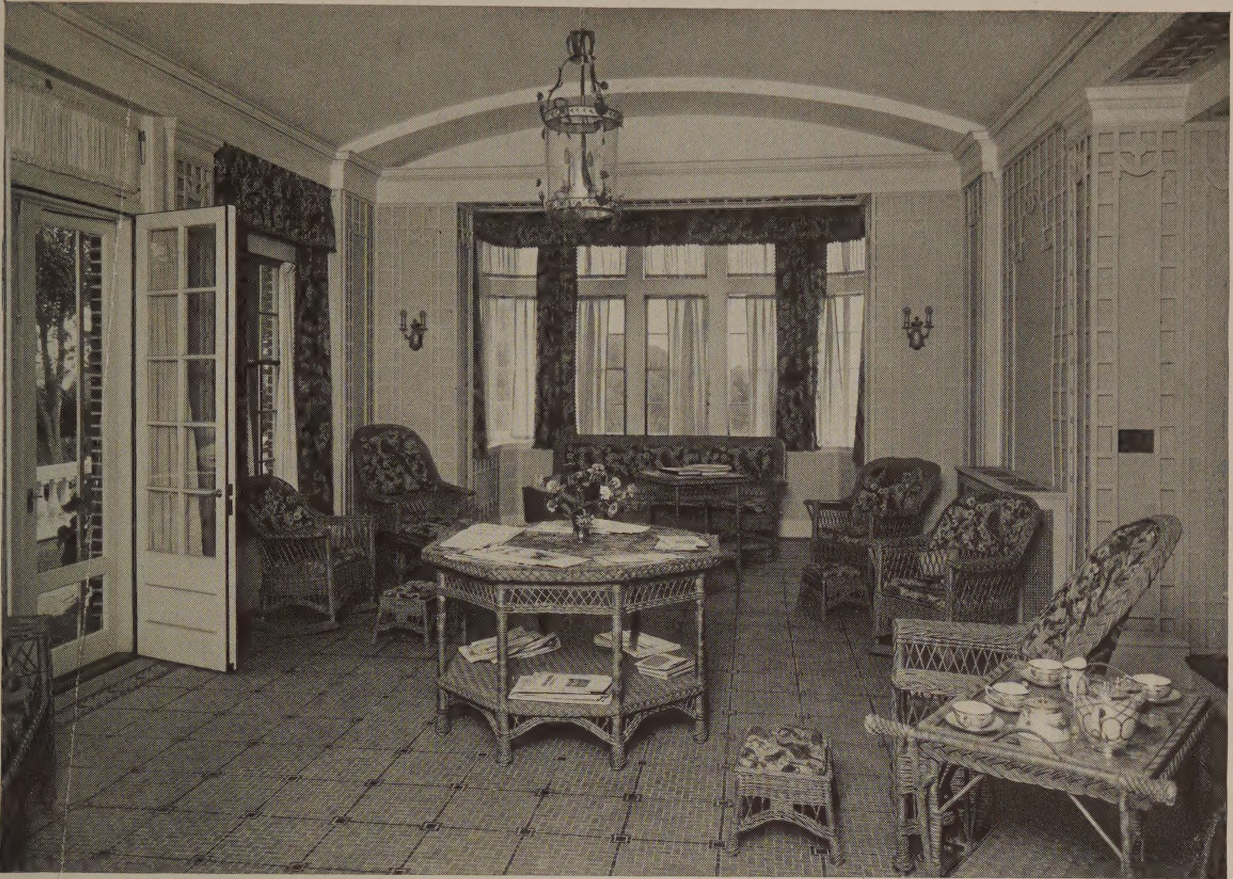
That there is a tendency all over our country at the present time for those who are investing money in buildings to employ contractors or construction companies rather than architects to do their work is plainly evident to the close observer; and there is not the slightest doubt that a large amount of work that rightfully belongs to the architect is being executed by parties outside of the profession. If proof of this statement is required, inquire of the practitioners north, south, east, or west. With few exceptions you will obtain complaints of lack of commission and a general stagnation in their business. Yet statistics show that there never has been a time in this land of ours when more money was being invested in buildings than to-day.

That this ignoring of architects is a most unfortunate condition and decidedly detrimental to the architectural and artistic development of our country must be admitted, and we must also face the fact, much as we may dislike to do so, that there is some tangible reason for such a state of affairs.

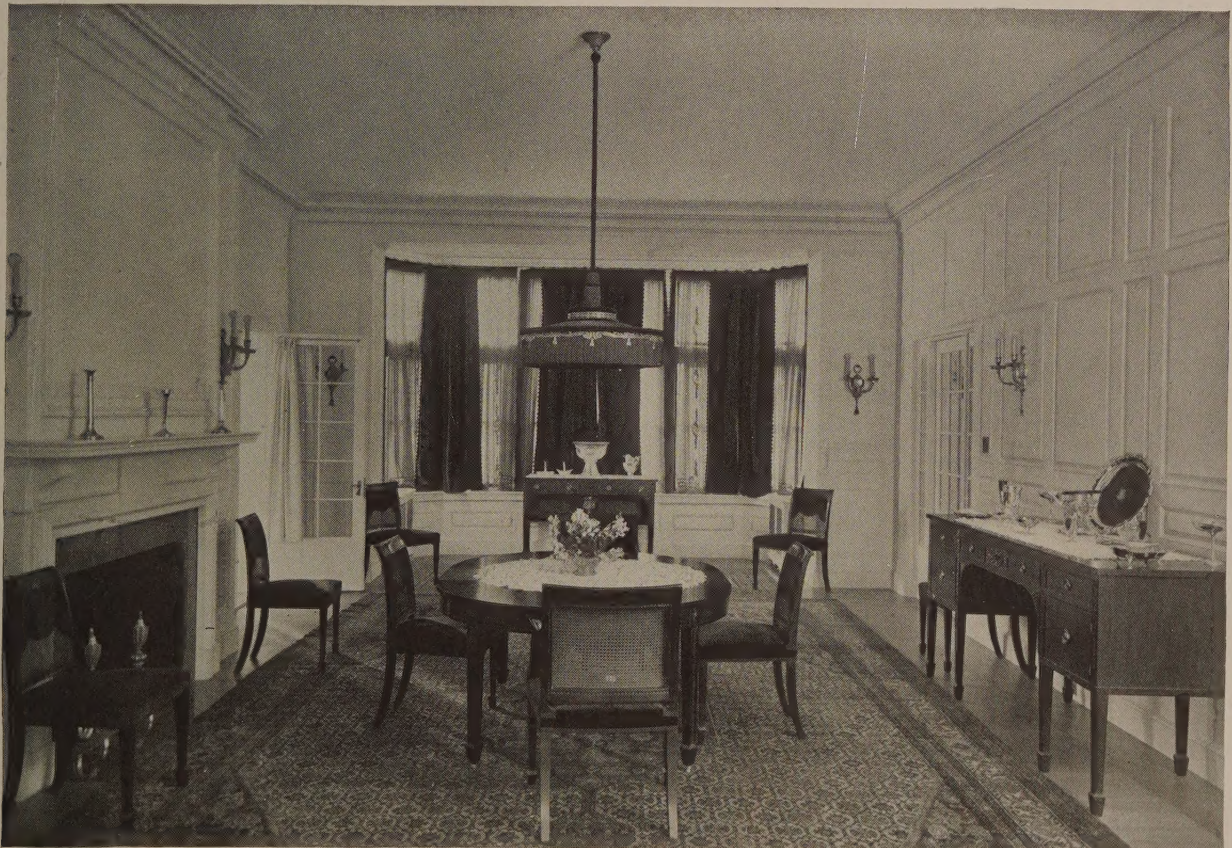
I am an old practitioner, have been many years in the mill, have closely watched the slow approach of this hydra-headed enemy, so to speak, and have studied to the best of my ability from the layman's point of view the reasons why the conditions that we now have to face have been brought about. If we are unbiassed in our judgment and make due allowances for the ignorance of the average man, of architecture and the kindred arts, it is not difficult from his point of view to understand why an architect is frequently distrusted and often ignored. Now, I am not referring to that horde of men who cut rates and receive illegal commissions, but to strictly high-class honorable practitioners who live up to the code of ethics prescribed by the American Institute of Architects and are supposed to do their work in the best possible manner. Why should men of this class, highly educated, carefully trained in design, and personally above reproach not be intrusted with work rather than the rough-and-ready contractor?

The answer can be given almost in a word—"Impracticability." This I honestly believe to be the weak spot in the practice of the modern architect. We have too many men among us who can design cleverly but cannot properly construct what they have designed. Practicability I consider to be one of the fundamental principles of good archi-

Continued on Page 52



SUN PARLOR.



DINING-ROOM.

HOUSE, M. J. CURRAN, PHILLIPS BEACH, MASS.

Peare & Quiner, Architects.

ture, but that it is wofully lacking in scores of buildings is lamentable but nevertheless true.

The far-seeing, successful business man of to-day requires above all things efficiency, and to obtain this experts are employed to reorganize great corporations and put them on a systematic paying basis. Naturally, to properly accomplish these results, the buildings that are to be occupied either for business or by tenants must be perfectly adapted for the purpose that they are built; in other words, utility and practicability are the most essential requirements of the architect by the investor; the average man cares little for the artistic or æsthetic value of his building. What he wants is a practical solution of his problem, and a building well planned and so soundly constructed that its up-keep will be small and from which he will receive a good percentage on his investment.

No matter how monumental or artistic the structure may be or how much it may be admired by the passing throng, if it is ill adapted for its occupants, if it leaks, or if it is improperly heated and ventilated, if it is poorly lighted, etc., it is a dismal failure from the investor's standpoint and the architect is blamed, far too many times justly, for producing such a structure.

I am a firm believer in utility, as I consider it should enter into all good designing and that it should never be sacrificed for architectural effects, personal whims, or artistic embellishments. Do not, I pray you, get the impression that I am not an advocate of good proportion, artistic treatments, and suitable ornamentation, but I would on no account

sacrifice the utility or weaken the construction of any structure to obtain these results.

Violet le Duc's axiom of, construct first and then ornament your construction, was sound, and his criticisms of the teachings of the Ecole des Beaux Arts just. The writer is a Beaux Arts man and has the utmost respect and love for it, believes it to be the greatest architectural school in the world, but is not so blinded by its worth as not to be able to see its shortcomings. It is one thing to turn out a good designer, clever draftsman, and skilful renderer, and quite another to produce one that can construct in a practical way that which he so charmingly depicts on paper.

And this is just what not only the Ecole des Beaux Arts but our own architectural schools are constantly doing. I have had in my office in years gone by, and no doubt others have had the same experience, men from the Institute of Technology, University of Pennsylvania, Columbia, and Cornell who stood high in their classes, had graduated with honor, were fine draftsmen, were well versed in architectural lore, were good mathematicians, and who could render astonishingly well in pen or color, but who could not make a practical working detail that an average workman could work from to save their lives. Technically these men were all to the good, but practically they were of absolutely no use. Some of them in a very short time left me and started in business for themselves; invariably they got into all kinds of difficulties, and their clients, after the experiences they had with them, naturally did not have a very good opinion of our profession and expressed themselves accordingly. Can you blame them?

Legal Decisions of Interest to the Architect

These decisions appear monthly and are edited by Mr. John Simpson, the well-known lawyer

CONSTRUCTION OF CONTRACT FOR REMOVAL OF DÉBRIS

Action was brought on a contract for the removal of débris from land. The plaintiff had offered to do the work for a fixed price of \$16,076, or to do it for actual cost plus 10 per cent. on a specified scale of wages for labor, and entered into a written contract providing that the work should be paid for upon cost charges plus 10 per cent. for superintendence, that in case of any increase of wages demanded for labor above the amount specified the plaintiff's charges should thereafter be based upon such increased cost of labor, but that, if the defendants should deem the increase excessive, they should have the privilege of stopping all further work, and that the total of the work should not exceed the sum of \$16,076, except as specified. It was held that the contract limited the plaintiff's charge for the entire work, except for increases in the cost of labor, to the sum of \$16,076. The plaintiff, after work had been stopped because of the increases demanded by laborers, resumed work in response to letters written by the defendants setting forth their interpretation of the contract. It was held that the plaintiff must be deemed to have acceded to the defendants' interpretation, though not expressly assenting. Where the defendants' refusal to make further payments on account of the contract was warranted and the contractor himself repudiated the contract, he could not maintain an action on the quantum meruit for sums claimed to be due.—*Ransome Const. Co. v. Von Schroeder (Cal.)*, 167 Pac. 1144.

PRODUCTION OF CERTIFICATES

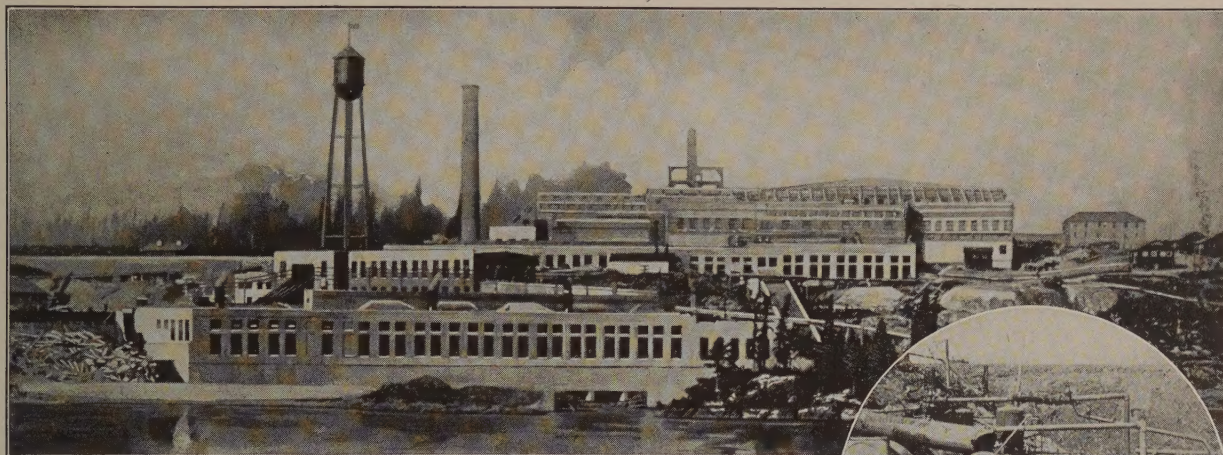
The Pennsylvania Supreme Court holds that where the engineers named in the contract had withdrawn from

the job, and that no other engineers had ever been appointed in their place, of which fact both parties were cognizant, the contractor should not be required, in an action on the building contract, to make an attempt to procure certificates, as the law does not require parties to do useless or attempt impossible or unnecessary things.—*Mayer Bros. Const. Co. v. American Sterilizer Co. (Pa.)*, 101 Atl. 1002.

ARCHITECT'S CERTIFICATE AS BETWEEN GENERAL CONTRACTOR AND SUBCONTRACTOR

A contract between a general contractor and a subcontractor declared that should any of the work done or materials provided by the subcontractor be unsatisfactory to the architects, then the subcontractor should immediately remove such unsatisfactory work or materials and supply their place with other work and materials satisfactory to the architect or general contractor. The contract also provided that, should any question arise during the progress of the work, it should be referred to the architect, whose decision should be binding on both parties. The specifications contained a test for concrete floors to be made after they had been in place for forty-five days, but the architect before the laying of the floors disapproved certain floor joints constructed by the subcontractor. The Circuit Court of Appeals, Eighth Circuit, held that such disapproval by the architect was binding on the subcontractor, though the architect rejected the joists without waiting for the construction of the floors, as they would have been rejected if constructed. As the parties committed the work to the satisfaction of the architect, as arbiter, his judgment, when

Continued on page 54



This Roof Helped Save 1600 Lives!

In the summer of 1916 a terrific fire swept 650 square miles of Ontario forests. It wiped out whole villages, bringing death and terror to thousands of people.

At Iroquois Falls the population of the town took refuge in the plant of the Abitibi Pulp & Paper Company, a modern building of reinforced concrete with steel window-sashes and a Barrett Specification Roof.

The building was wrapped in smoke and flame. The air was literally afire. Thousands of cords of wood in the adjacent yards blazed in the fierce sixty-mile-an-hour wind.

For nine hours they covered there with windows and doors locked air-tight and fire-hose

and sprinklers working, while the fire raged about them.

The insurance inspectors who arrived four days later stated in their official report that *the mill-buildings were brought through undamaged.*

The roof was in good condition and is still on duty. It made an ideal, fire-proof, non-inflammable fire-blanket. Embers that fell upon it made the pitch soften and smoke but did not ignite it.

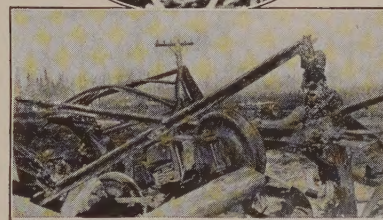
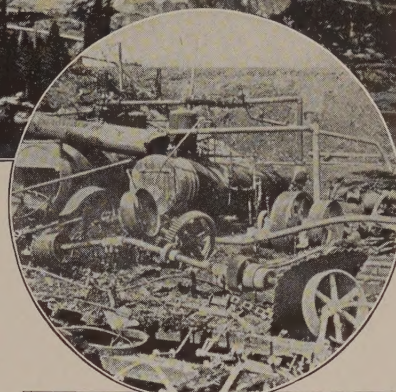
Surely this is proof positive that Barrett Specification Roofs have great fire-resisting properties.

But that is only *one* of their many points of superiority. Barrett Specification Roofs cost less per year of service than any other permanent roof; they cost nothing to maintain; they take the base rate of insurance and, further, they are guaranteed for twenty years as follows:

A copy of The Barrett 20-Year Specification, with roofing diagrams, sent free on request

The *Barrett* Company

New York Chicago Philadelphia Boston St. Louis Cleveland Cincinnati Pittsburgh
 Detroit Birmingham Kansas City Minneapolis Nashville Salt Lake City Seattle Peoria
 THE BARRETT COMPANY, LIMITED: Montreal Toronto Winnipeg Vancouver St. John, N. B. Halifax, N. S. Sydney, N. S.



The photos above, taken after the great fire had passed through Iroquois Falls, give some idea of the terrific heat all around the Abitibi Pulp & Paper Co. plant. Note the bent and twisted steel rails and frame-work.

Roofing Contrs.—Metal Shingle & Siding Co., Montreal.
 Engineer—George F. Hardy, New York City
 General Contrs.—Morrow & Beatty, Ltd., Peterboro, Ont.

20-Year Guaranty

We are now prepared to give a 20-Year Surety Bond Guaranty on every Barrett Specification Roof of fifty squares and over in all towns in the United States and Canada of 25,000 population and more, and in smaller places where our Inspection Service is available.

This Surety Bond will be issued by the United States Fidelity and Guaranty Company of Baltimore and will be furnished by us without charge. Our only requirements are that the roofing contractor shall be approved by us, and that The Barrett Specification dated May 1, 1916, shall be strictly followed.



Barrett Specification Roofs

**Resist
Fire**

reached in the exercise of good faith, was conclusive.—*Berger Mfg. Co. v. Huggins*, 242 Fed. 853.

DAMAGES FOR GENERAL CONTRACTORS' DELAY

A building contract required the completion of the work within three hundred days, but provided that, if the subcontractor was delayed by the default of the general contractors or others, the time should be extended for a period equivalent to the time lost. The Circuit Court of Appeals, First Circuit, in an action by the subcontractor (who refused to complete the work) for breach of contract, held that delays by the general contractors, interfering with the progress of the work by the subcontractor, did not justify it in declining to complete the work, though under another provision of the contract it was entitled to damages for such delay.

The subcontract required the subcontractor to furnish and set in position, including the concrete backing, all imitation of sandstone, and to construct interior concrete walls, etc., and provided for payment therefor of \$64,750, in monthly payments on account not exceeding 85 per cent. of the cost of the work actually erected, on requisitions on a form to be supplied by the general contractors. A subsequent paragraph required a subcontractor, at the option of the general contractors, also to set all granite walls, etc., for forty cents a square foot surface. It was held that as the monthly payments to be made in advance were for the concrete work and to come out of the \$64,750, and as there was no provision for monthly payment for setting the granite, the general contractors were not guilty of a breach of contract, justifying the subcontractor in refusing to complete the work, because they failed to honor requisitions which included advance payment for the granite work in the amount demanded. It was held that the subcontractor was entitled to recover, if at all, on the provision requiring the general contractors to reimburse him for loss caused by delay on their part, the reasonable expenditures incurred in the performance of the contract, less payments made and materials on hand, damages due to the delays not included in the expenditures and attributable to the general contractors, and the profits which would have been realized from performing the contract.—*P. J. Carlin Const. Co. v. Guerini Stone Co.*, 241 Fed. 545.

ARCHITECT'S WRITTEN APPROVAL OF EXTRAS

A building contract contained the following provision: "If any extra work is required, a price for the same must be agreed upon and approved in writing by the architect before such work is begun." Certain extra work was done without such written approval. In an action for the price the Massachusetts Supreme Judicial Court holds that it was not within the authority of the architect to waive the provision of the contract, and although he orally approved all extra work and the disbursements for which recovery was sought, there was no evidence that the owner ever waived the provision or ratified the architect's acts; therefore the plaintiffs could not recover.—*Burns v. Thorndike* (Mass.), 117 N. E. 799.

DELAY IN DELIVERY OF MATERIAL

In an action for a balance claimed to be due to the plaintiff for marble furnished to the defendant for use in constructing a building, the defense was that the plaintiff

breached its agreement as to the time for delivering the marble. The Wisconsin Supreme Court held that, the plaintiff having agreed to deliver the marble so that work could be completed by a certain date "if the progress of the work at the building demands it," the "progress of the work" referred to marble work, and the plaintiff was required to deliver marble as marble-setters were ready to use it, regardless of whether delay in delivery of marble necessarily caused delay in the work as a whole.—*Grant Marble Co. v. Marshall & Ilsley Bank* (Wis.), 165 N. W. 14.

OPTIONAL REMEDY FOR FAILURE TO FURNISH BUILDING MATERIAL

A contract to furnish certain building material according to the plans and specifications for the building provided that on the party agreeing to furnish such material failing to do so the other party was authorized to purchase the material and charge same to the first party. It is held that such remedy of the other party was optional with him and did not deprive him of his common-law right to recover damages for a breach of the contract nor limit the first party's liability for such breach.—*Chicago, etc., Lumber Co. v. Tatum*, 202 Ill. App. 421.

CONSTRUCTION OF BUILDING CONTRACT

An agreement provided that one of the parties, a corporation, should receive for its entire compensation for its services in erecting a building a sum equivalent to 10 per cent of the entire cost of the building. The New Jersey Court of Errors and Appeals holds that under this provision the corporation was not entitled to receive, in addition to the 10 per cent called for, the proportion of the salaries of its officers and office employees while engaged in supervising the construction of the building; nor 10 per cent of the cost of financing the building after the disbursements in connection therewith had been allowed; nor for telephone calls, car-fares, postage, or stationery, as they were office charges of the corporation; nor for tools used in the construction, as they were part of the equipment of a contractor.—*Shaw v. G. B. Beaumont Co.* (N. J.), 102 Atl. 151.

MECHANICS' LIEN STATEMENTS—PRINCIPAL CONTRACTOR'S LIABILITY

In proceedings to determine the sufficiency of mechanics' liens for labor and materials the West Virginia Supreme Court of Appeals states the following rules as those sustained by the great weight of authority in the various States: The lien statement of a subcontractor will not be held insufficient for want of itemization merely because the account is for a lump sum expressly stipulated for in his contract with the principal contractor. Where from such an account, considered as a whole, the year in which the material was furnished is ascertainable with reasonable certainty, and the month and day for each item is given, the account will constitute a sufficient compliance with the statute, although the year is omitted opposite or above the particular items in the account. To warrant a personal decree in a mechanic's lien proceeding against a principal contractor for a debt incurred by a subcontractor for materials, it must affirmatively appear that the principal contractor assumed liability therefor in such manner as legally bound him to pay the debt. The mere relation of the parties to the construction contract, without more, does not suffice.—*Pittsburgh Steel P. Co. v. Huntington Masonic T. Assn.* (W. Va.), 94 S. E. 127.